

NONPAREIL CORKBOARD

WHENCE



WHITHER

NONPAREIL CORKBOARD

WHENCE IT COMES
WHITHER IT GOES

A STORY IN PICTURES

ARMSTRONG CORK COMPANY

Insulation Department

PITTSBURGH, PENNSYLVANIA

U. S. A.

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ARMSTRONG CORK COMPANY
Pittsburgh, Pa.

THE CORK OAK

NONPAREIL Corkboard—the standard cold storage insulation—is made of cork—the outer bark of the cork oak, a tree that flourishes in the Spanish Peninsula, Southern France and Northern Africa. Of the several countries, Portugal is the leader in cork production. Spain is a close second, and Algeria, with Tunis, ranks third.



CORK

THE heavy coating of outer bark—the cork of commerce—is shown clearly in this photograph of the gnarled trunk and branches of an old cork tree. This outer bark is stripped off every eight or nine years. So long as the delicate inner skin is not harmed, this process seems to further, rather than retard, the development of the tree.





CORK STRIPPERS' CAMP

THE cork strippers live in camp during July and August, the months when the crop of bark is gathered. The forests are generally located in hilly or even mountainous country. This view was taken in Spain.

STRIPPING THE TREES

A CORK tree yields its first stripping of good bark, as a rule, when about forty years old, and continues productive for a century or more. The strippers are here shown at work taking off the bark with their long-handled hatchets.





WEIGHING CORK BARK

CORK bark is paid for by weight. It is weighed in the forests after having dried a few days in the sun.

A BOILING STATION

After having been weighed, the bark is roughly baled up and transported, usually on burro back, to the nearest boiling station. Here it is boiled in large vats filled with water and the rough, woody back scraped off. The boiling process increases the elasticity of the bark, renders it soft and pliable, and flattens it out for convenient packing.





Courtesy of Dr. D. C. Fairchild, U. S. Department of Agriculture

THE FAITHFUL BURRO

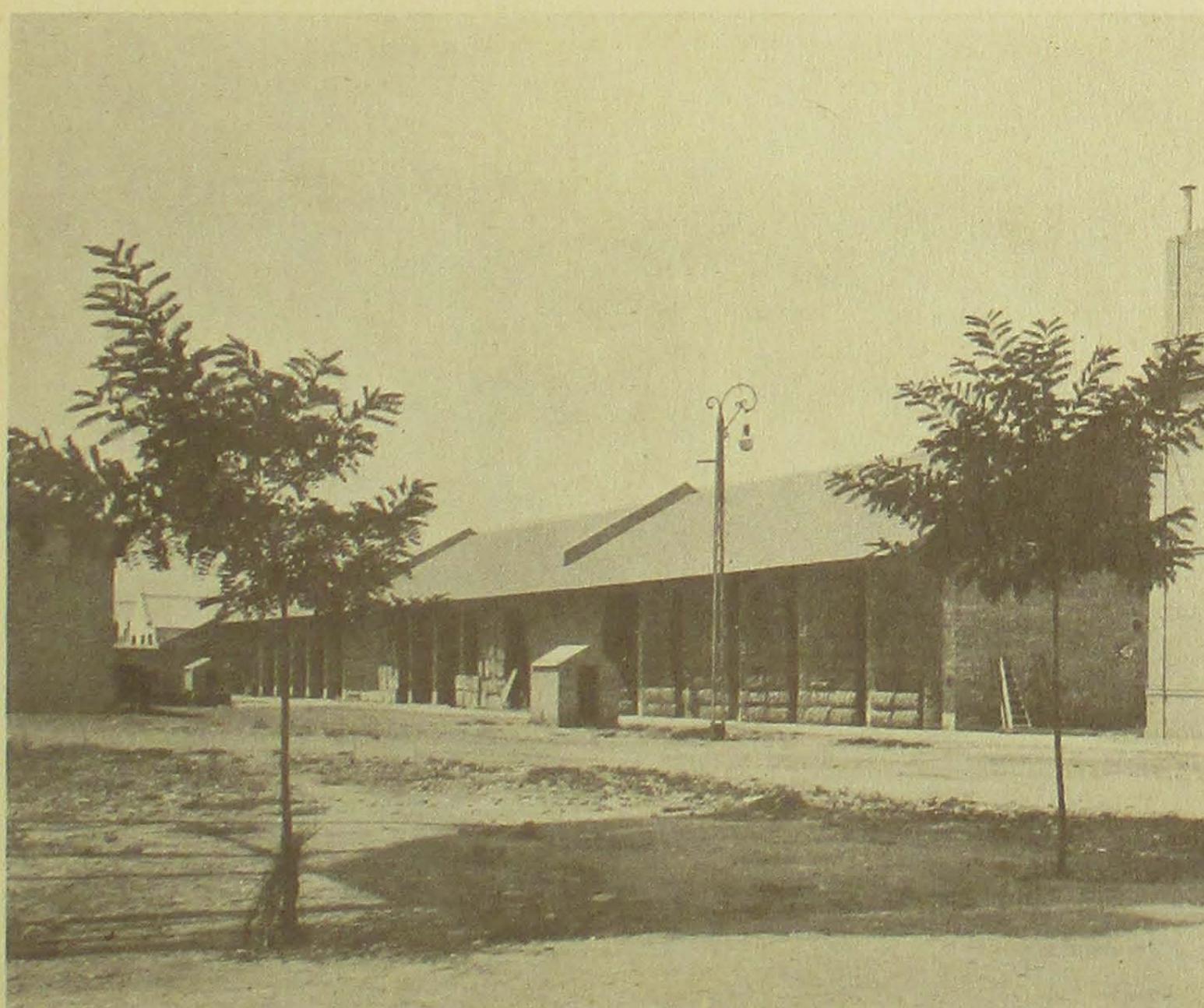
FROM the boiling station, the "cork-wood" is carried on the backs of burros, or in wagons, when the roads permit, to the nearest railway for transportation to the cork manufacturing and distributing centers. The long trains of burros—loaded from head to hind-quarters with huge masses of the light bark—present a most grotesque appearance, as they pass slowly along, strung out in single file.

CORK WASTE

IN Spain and Portugal, a large part of the annual yield of corkwood is turned into finished form in domestic factories. In fact, the manufacture of corks is the principal means of livelihood of thousands of families. This photograph shows a group of Spanish workmen cutting stoppers by hand. The amount of waste in this process is surprising. Whether cut by the old hand method or by machinery, from 60 to 65 per cent of the corkwood is, of necessity, reduced to scrap. But even in this state, the bark is still valuable, for it is from this scrap that cork insulation, cork tiling, cork brick, linoleum, and a number of other useful articles are produced.



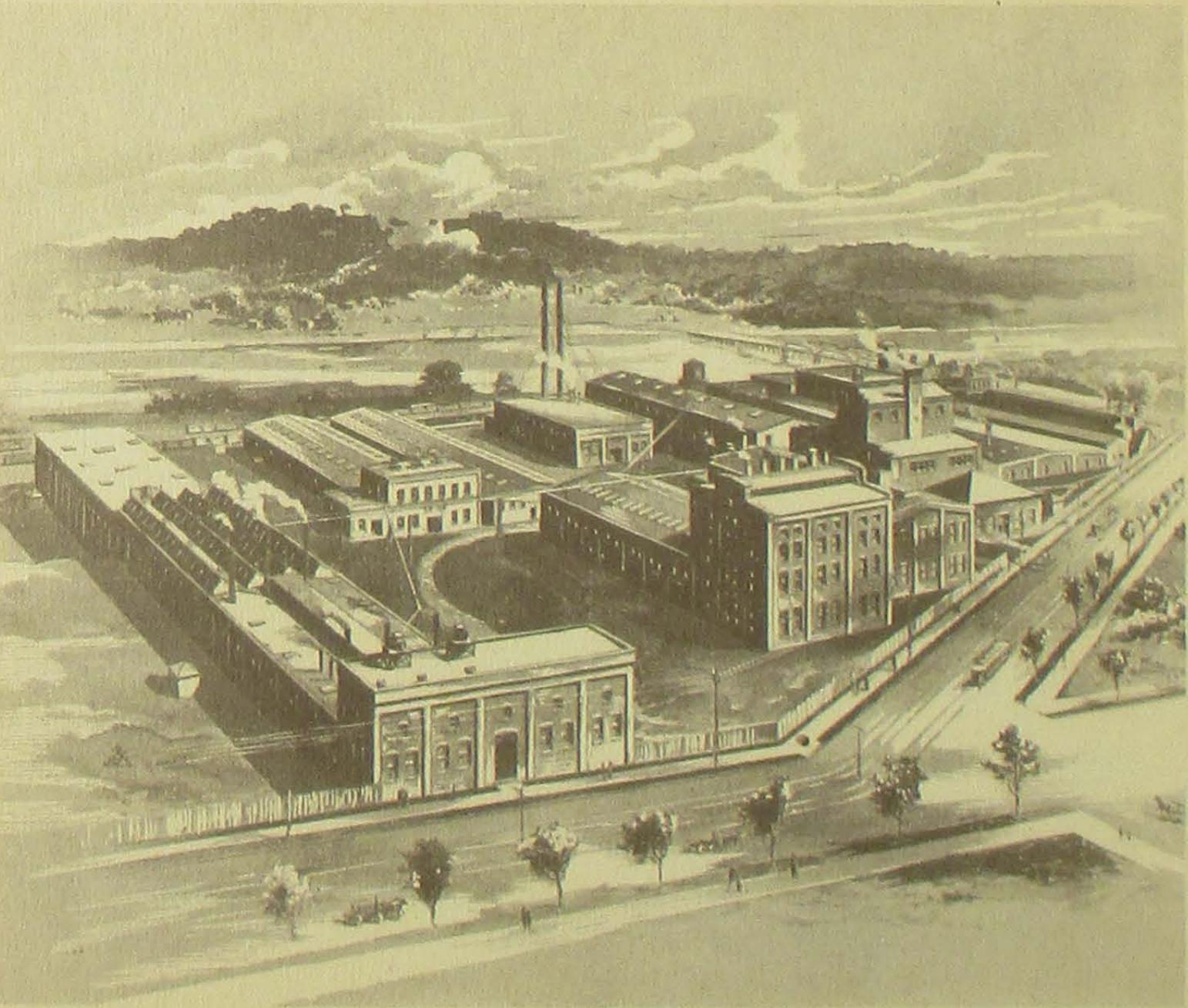
CORK WASTE WAREHOUSE—SEVILLE



THE scraps of cork—"cork waste"—are collected from hundreds of small factories throughout Spain and Portugal, put up in bales at convenient shipping points, and forwarded to the Company's factories in America, there to be made into Nonpareil Corkboard and Nonpareil Cork Pipe Covering. This illustration shows one of the cork waste warehouses in the Company's large plant at Seville, Spain. Through its connections in the cork-producing countries, the Company is able to secure a steady supply of the best cork waste produced.

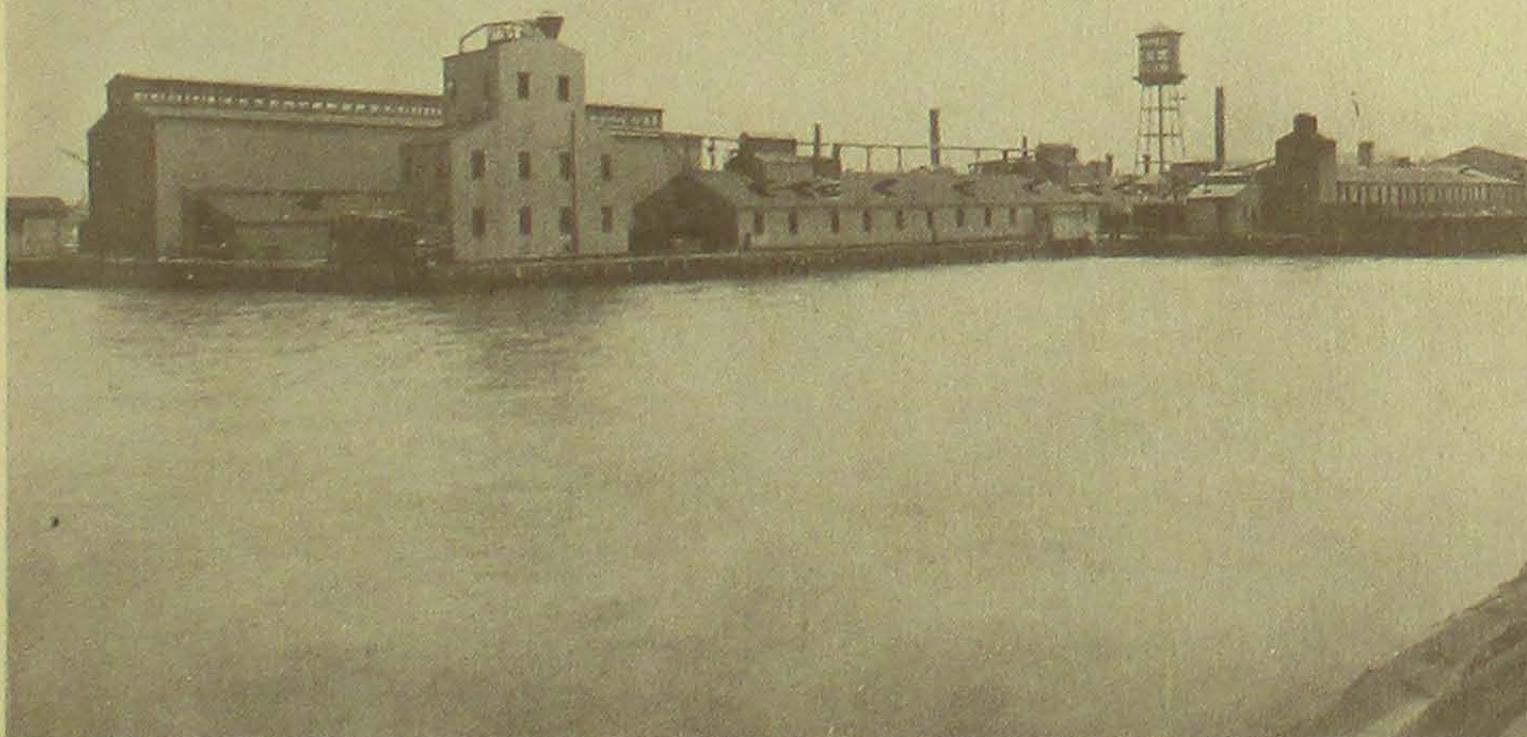
THE BEAVER FALLS FACTORY

THE Company's factory at Beaver Falls, Pennsylvania, covers twelve acres and is devoted exclusively to the manufacture of Nonpareil Corkboard and other cork insulating materials.



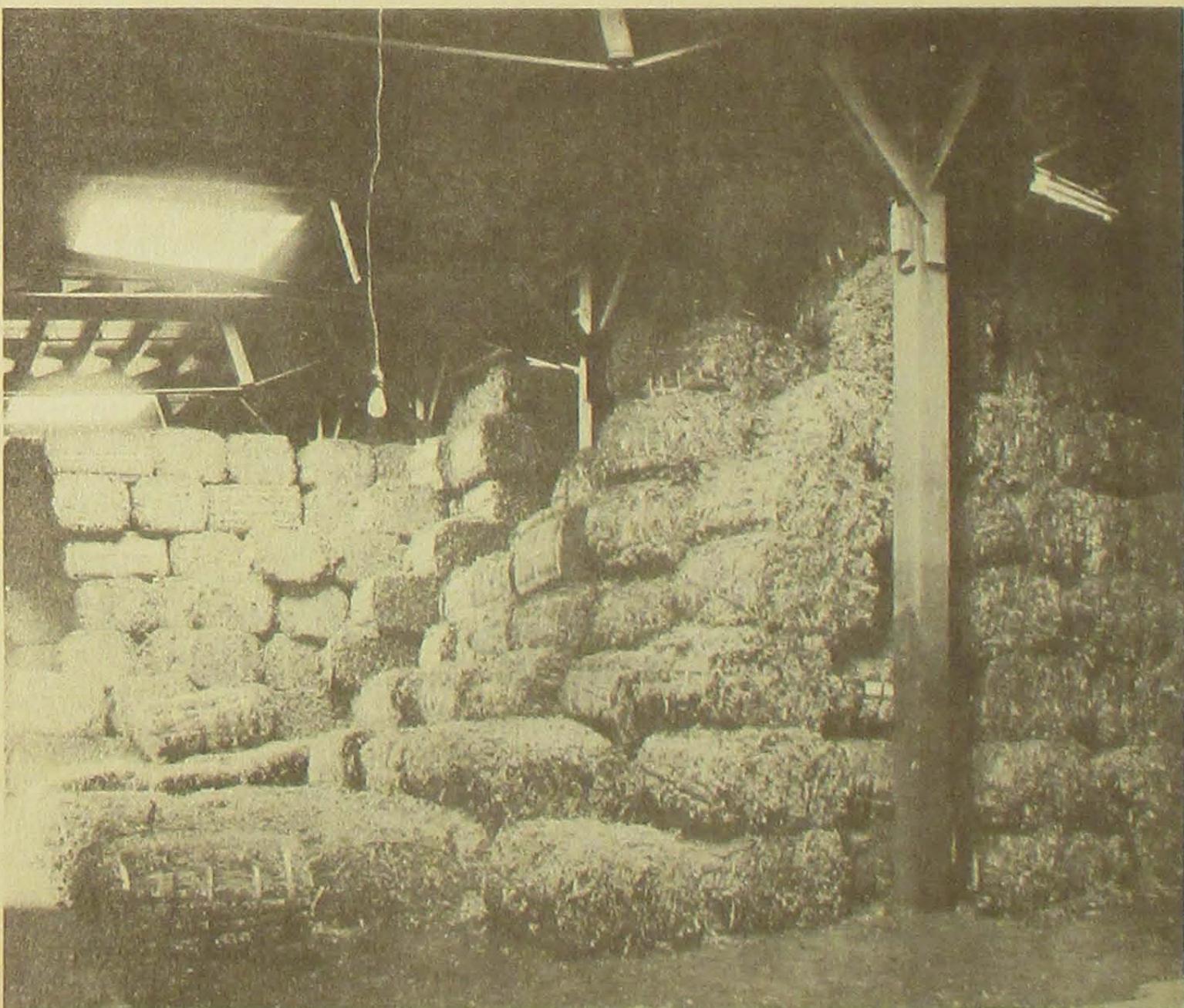
THE CAMDEN FACTORY

NONPAREIL Corkboard and Nonpareil Cork Pipe Covering are the sole products of the Company's plant at Camden, New Jersey. It covers six acres of ground. The combined output of the two factories is ten carloads of finished material a day.



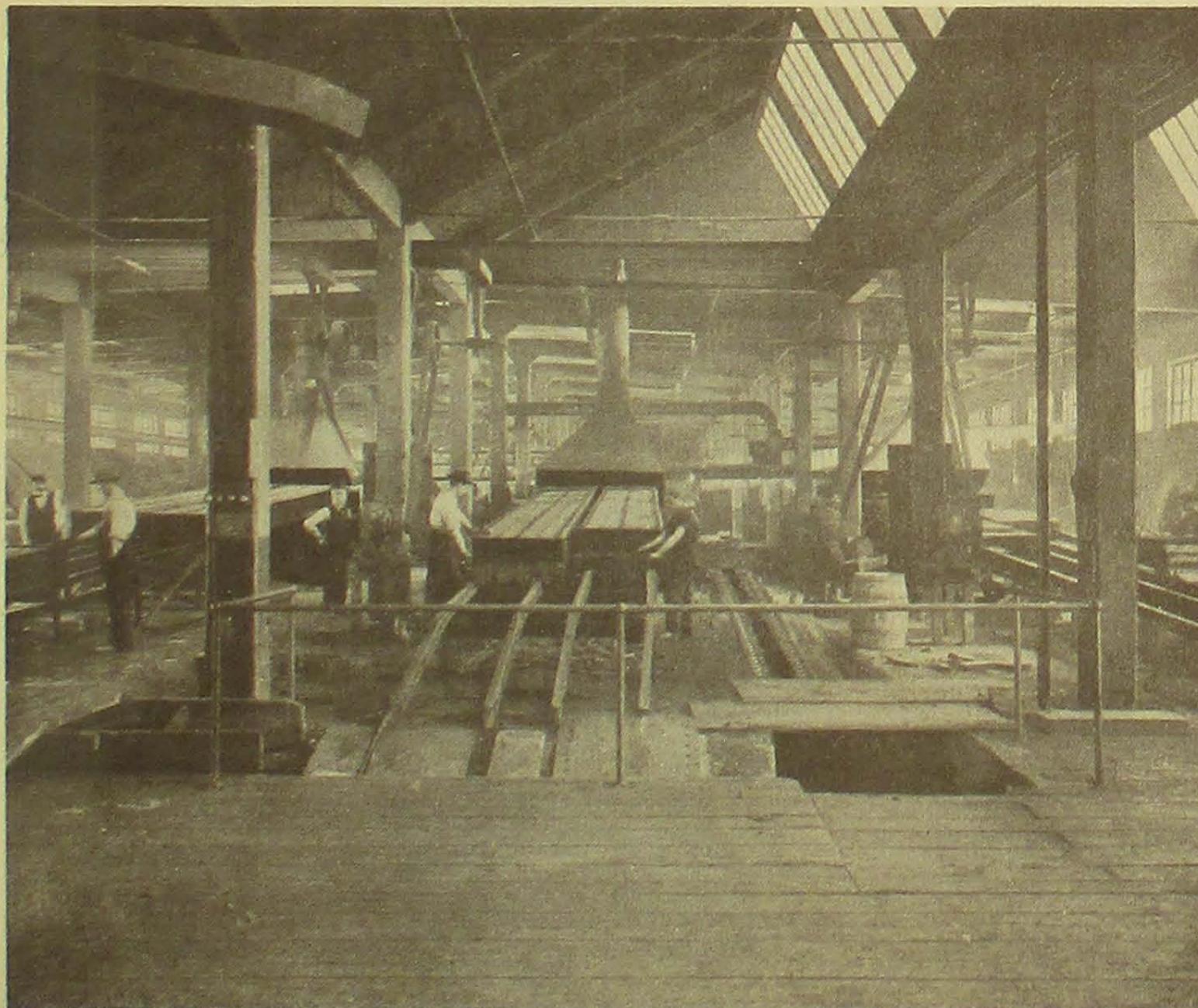
CORK WASTE IN STORAGE

THOUSANDS of tons of cork waste are required every year at Camden and Beaver Falls. This picture shows the interior of one of the cork waste warehouses at the latter plant.



HOW NONPAREIL CORKBOARD IS MADE

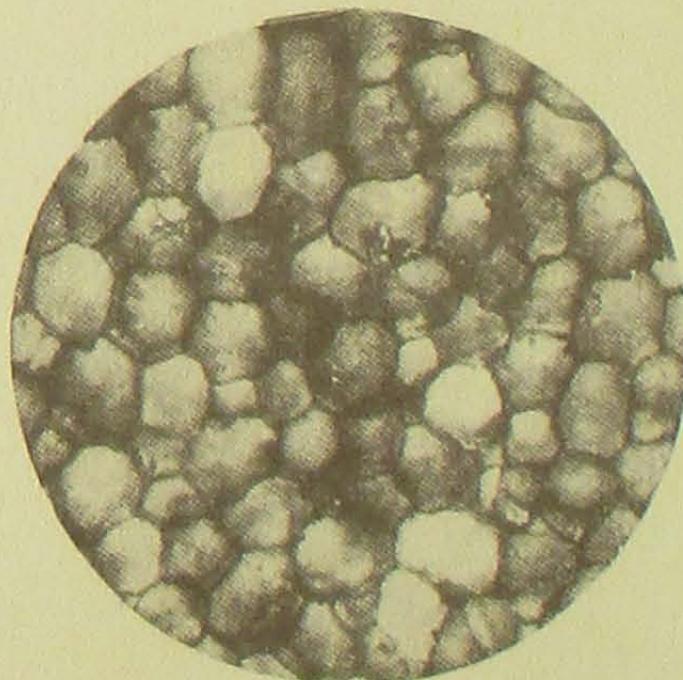
IN the manufacture of Nonpareil Corkboard, the waste is first ground up so that the largest granules will pass through a three-quarter-inch mesh screen. Next it is sifted several times so as to eliminate all dust and fine particles. The pure granulated cork is then slightly compressed in steel molds and baked at a moderate temperature. No foreign binder is added, for the simple reason that none is necessary. The natural gum in the cork serves to bind the whole mass together firmly. This natural binder is waterproof and proof also against most acids and alkalis. This illustration shows the end of one of the baking ovens at the Beaver Falls factory.



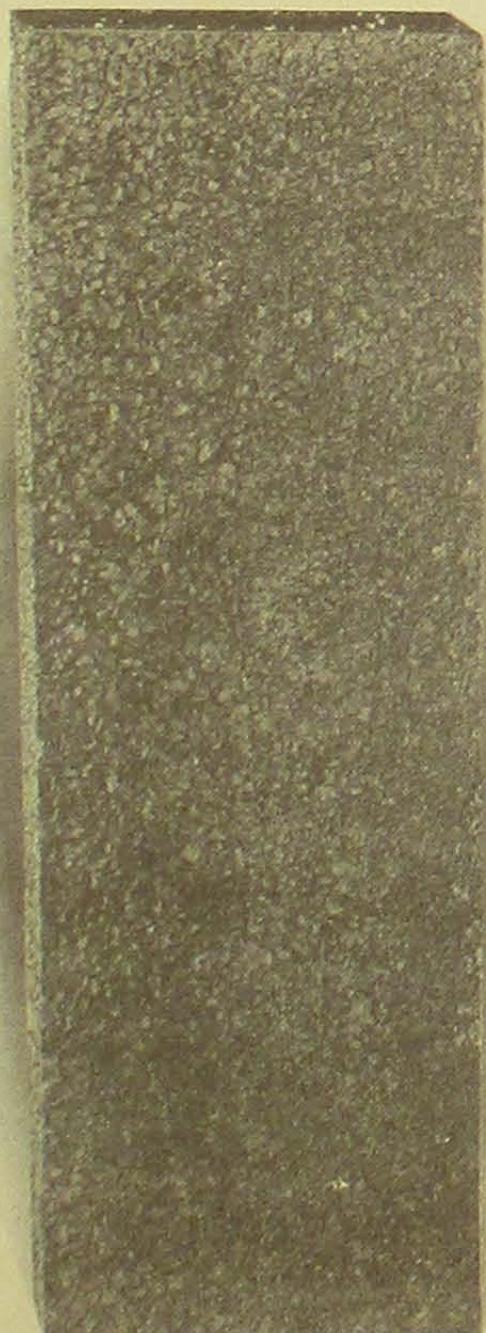
THE CELLULAR STRUCTURE OF NONPAREIL CORK

THE finished product is a light, strong sheet of pure cork, possessing maximum insulating efficiency. Under the microscope, cork is seen to consist of simply a mass of tiny sealed air cells—impervious to air and moisture. The pressure to which the granulated cork is subjected in the manufacture of Nonpareil Corkboard is not sufficient to destroy its cellular structure, as may be proven by microscopic examination of the finished material. The pressure goes largely to fill up the voids between the granules. The baking process actually increases the insulating efficiency of the raw material in two ways, viz:

1. All moisture and part of the volatile matter are driven off, thus increasing the volume of confined air.
2. The natural waterproof gum is spread out over the surface of each separate granule and affords an additional barrier against the entrance of moisture.



Nonpareil Corkboard Magnified 180 Diameters

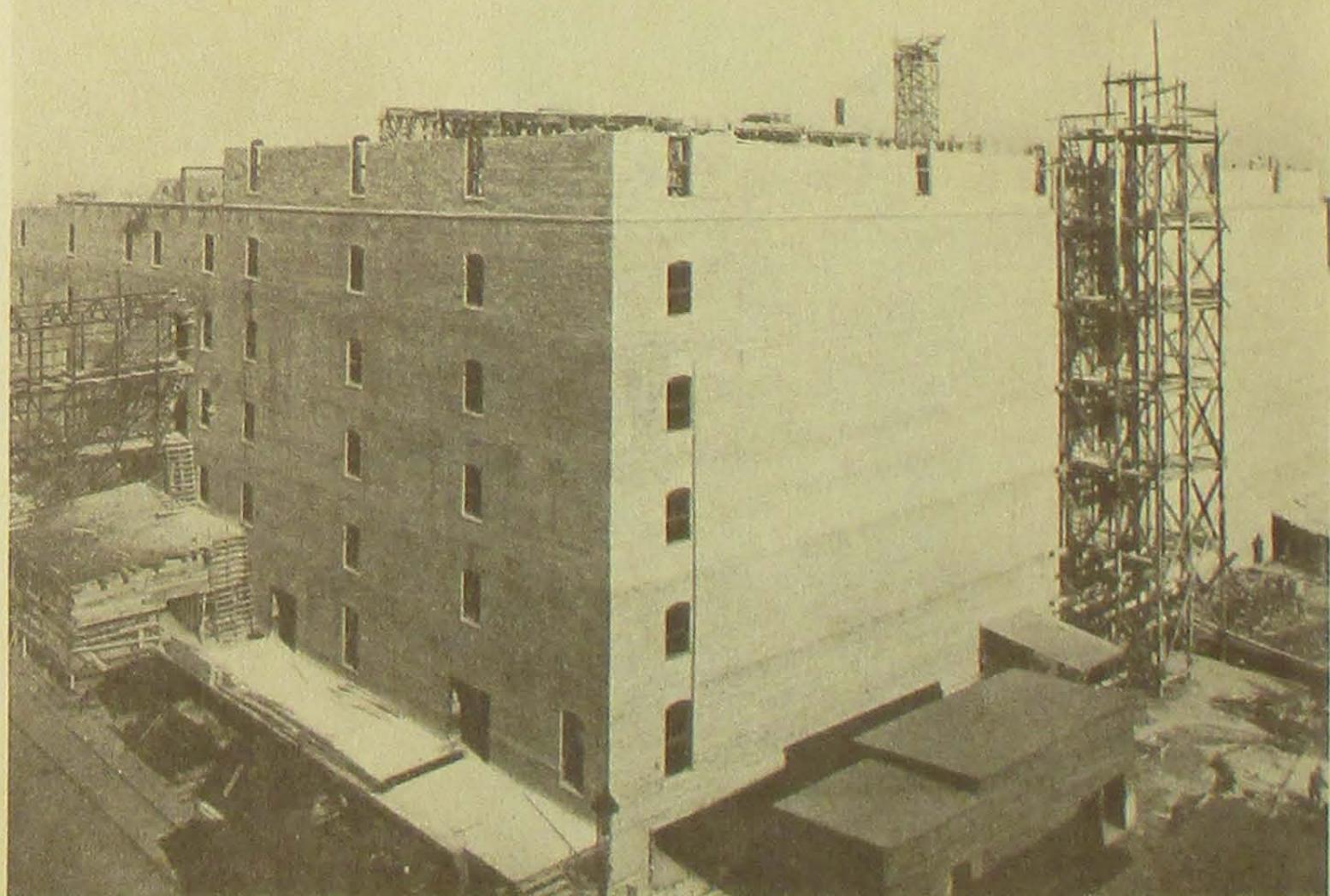


THE FINISHED PRODUCT
WHITHER IT GOES

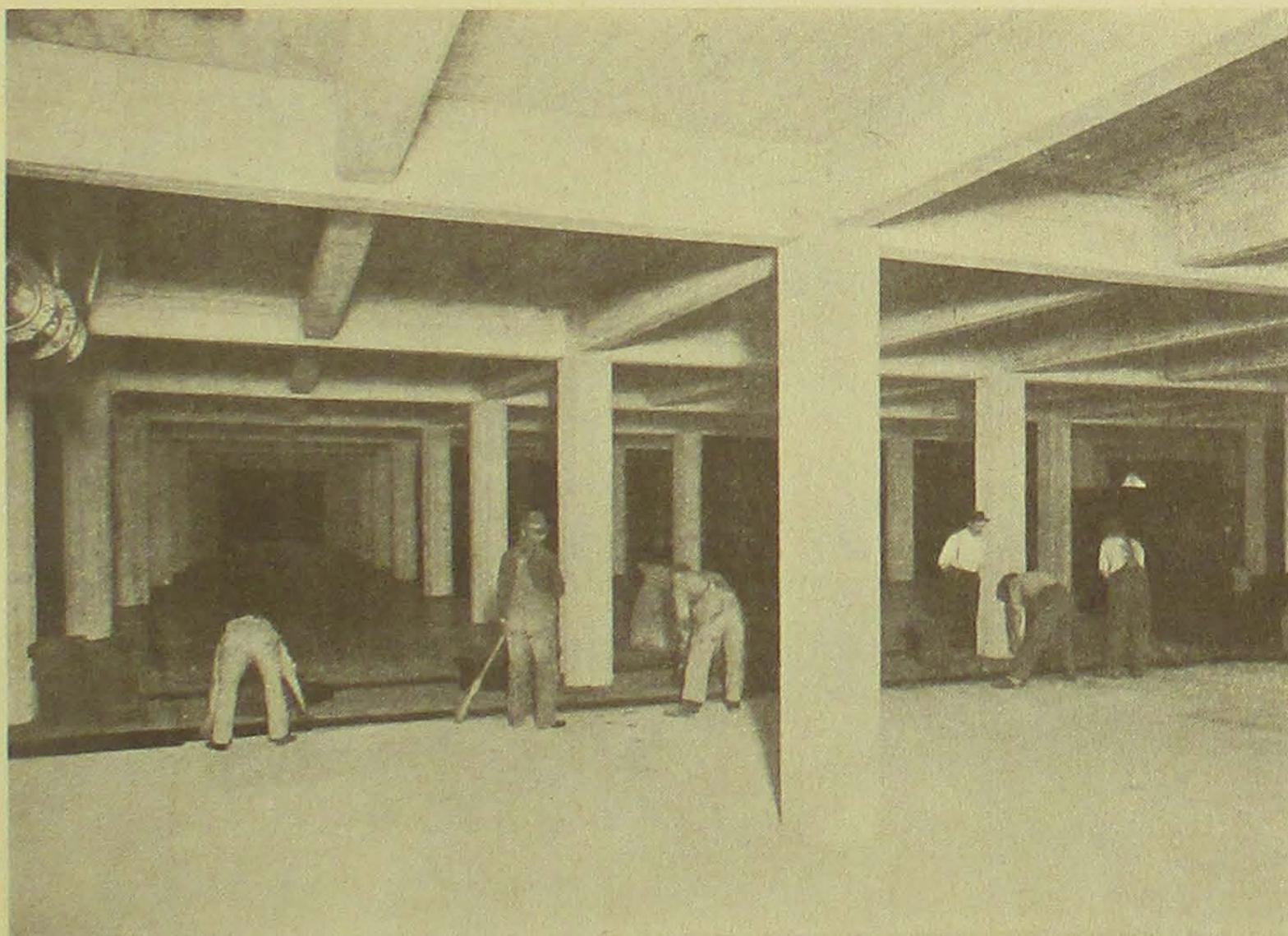
NONPAREIL Corkboard has been in use for fifteen years and is recognized today as the standard form of cold storage insulation. On the following pages will be found views of a few typical installations—large and small—in cold storage warehouses, ice factories, breweries, abattoirs, ice cream plants, dairies, creameries, candy factories, bakeries, wineries, commission houses, wholesale and retail groceries, butterine plants, fur vaults, hotels, clubs, public institutions, fruit pre-cooling plants and naval vessels. The material is also installed in fish freezers, canneries and mortuary vaults, and is used extensively by oyster growers, and by manufacturers of chemicals, paraffine, celluloid, photographic supplies, house refrigerators and soda fountains. All of which gives abundant evidence of the widespread satisfaction Nonpareil Corkboard has given the refrigerating fraternity at large.

MORRIS COLD STORAGE COMPANY
CHICAGO, ILL.

THE contract for the insulation of this building was the largest contract of the kind ever let. To execute it required seventy-five carloads—1,500,000 feet board measure—of Nonpareil Corkboard. The work was completed in exactly seventy-seven working days.



Under Construction



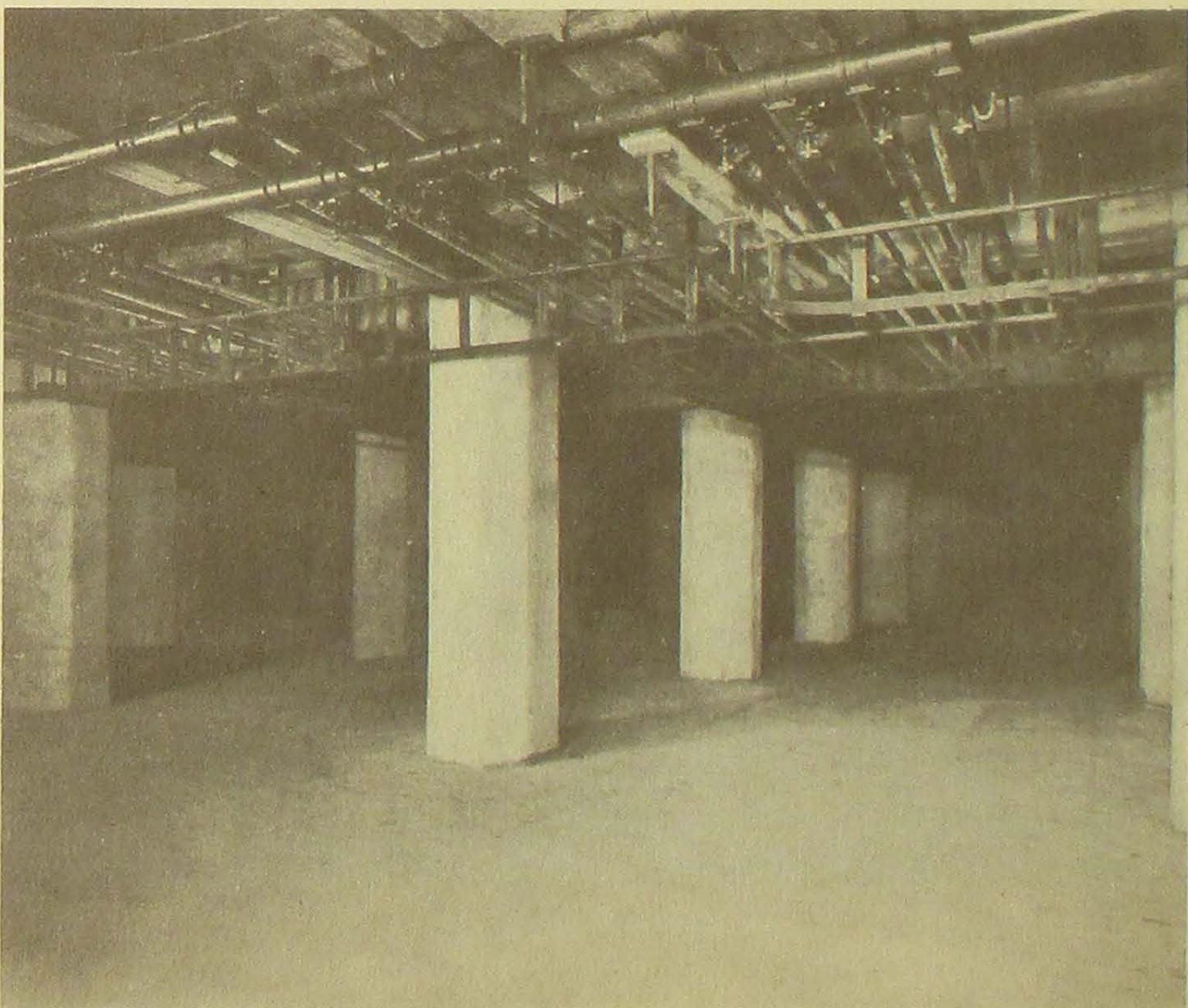
Laying Floor Insulation

MORRIS COLD STORAGE COMPANY
CHICAGO, ILL.

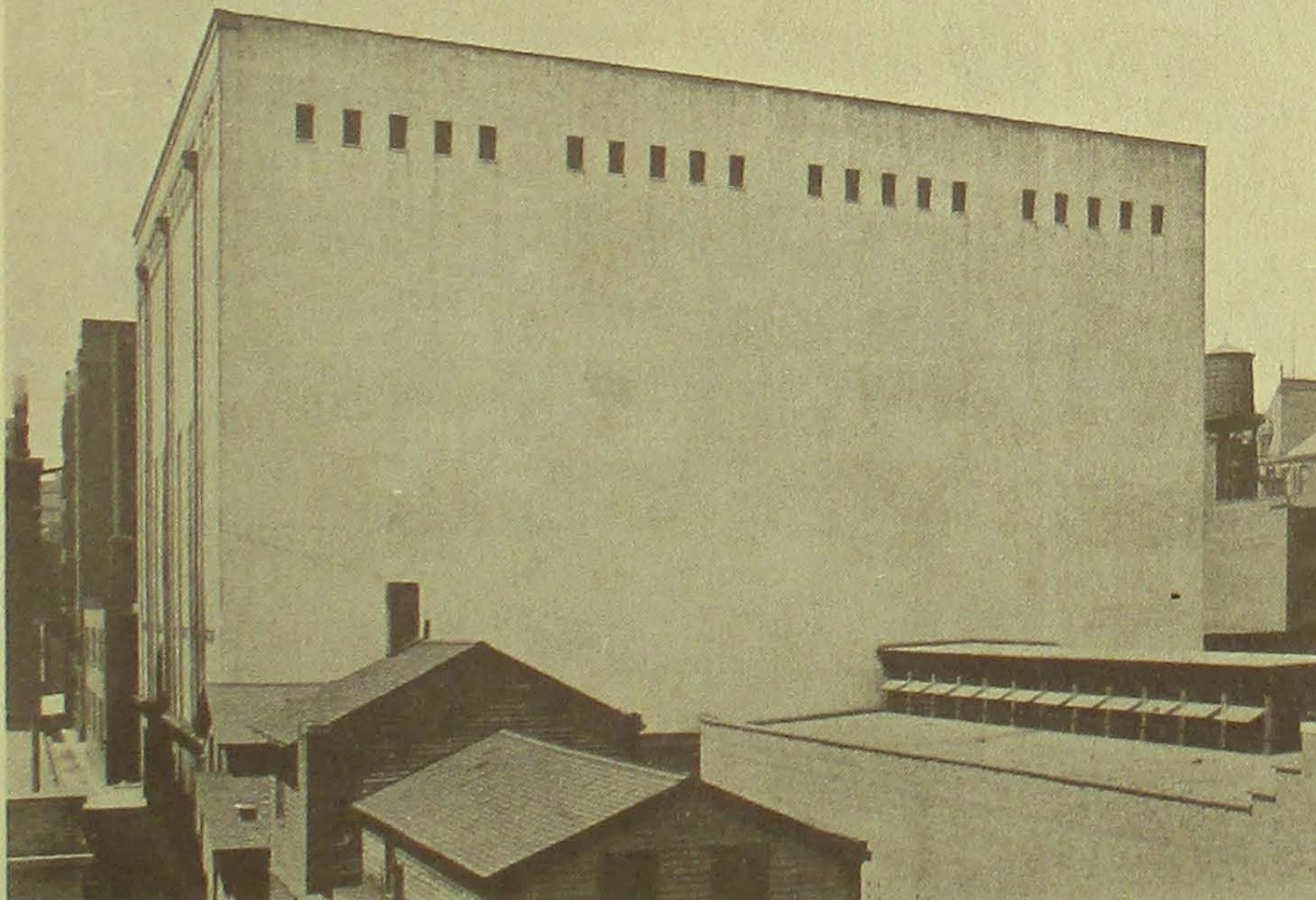
THE first, fifth and sixth floors of this building are insulated with six inches of Nonpareil Corkboard, laid down in hot asphalt, the wearing concrete floor being put down directly on top. The building is 200 feet square and seven stories high.

MORRIS COLD STORAGE COMPANY
CHICAGO, ILL.

THIS view gives some conception of the immense size of the storage rooms in this plant. The walls are insulated with two courses of three-inch Nonpareil Corkboard, both erected in cement mortar. The surface of the corkboard is plastered with Portland cement. The concrete columns of the upper and lower floors are insulated in a similar manner. The results, in actual operation, have been all that could be desired.



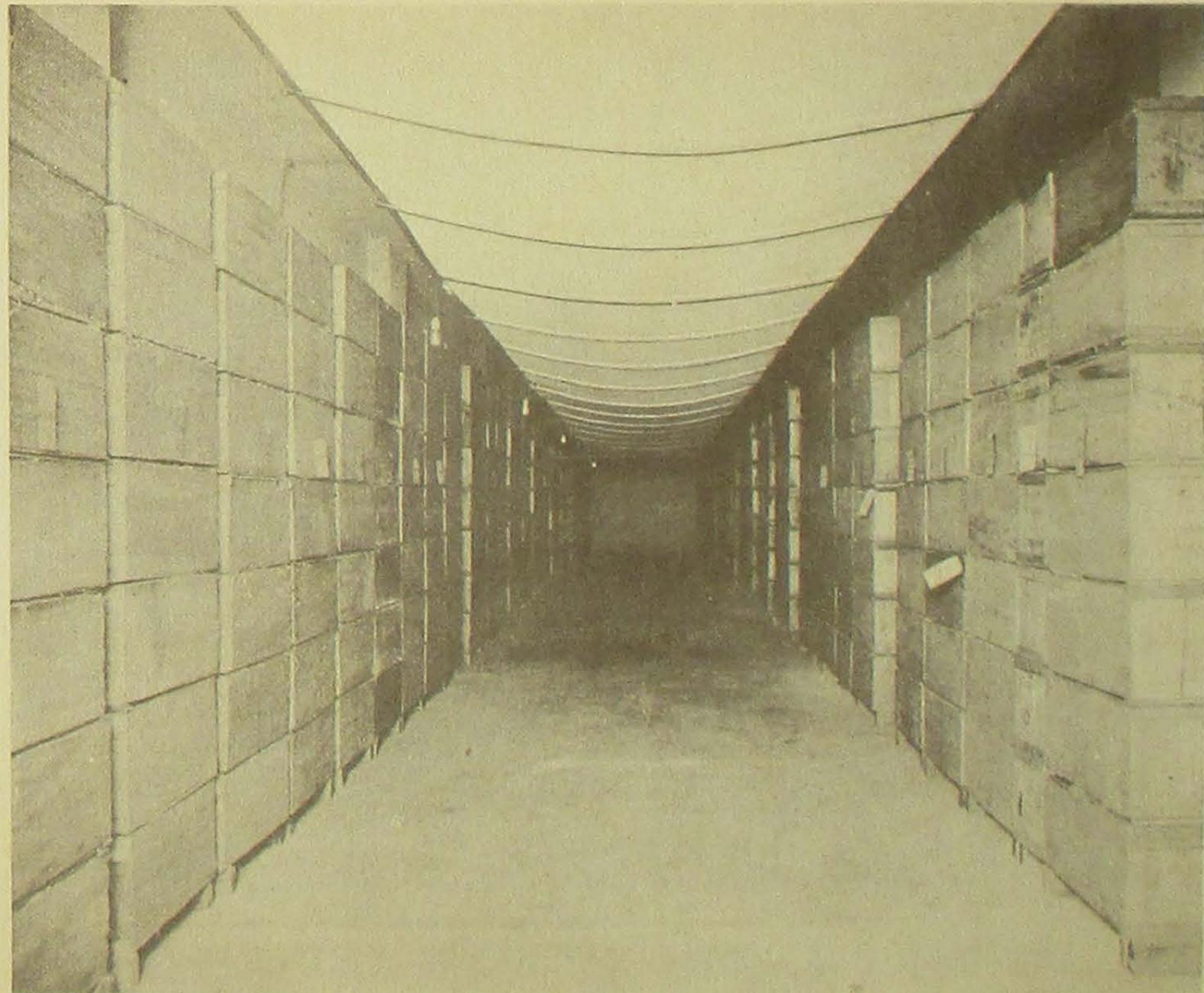
THE SHERIFF STREET MARKET
& STORAGE COMPANY
CLEVELAND, OHIO



THIS warehouse was built in 1907. In many respects it marked a departure from the accepted theories of cold storage warehouse construction. Particular attention was paid to designing the insulation, with the object of eliminating unprotected belts in the outer walls at each floor level. This was accomplished by building an interior structure of steel and concrete to carry the load, and casing it in with "curtain" walls—self-sustaining and independent of the structure within—against which the insulation was applied in a continuous sheet from basement to roof. Sixteen carloads of Nonpareil Corkboard were required to insulate this warehouse.

THE SHERIFF STREET MARKET
& STORAGE COMPANY
CLEVELAND, OHIO

THE outer walls of this building are hollow tile, against which two courses of Nonpareil Corkboard are erected in asphalt cement. The cork is faced with a single layer of hollow tile, plastered with Portland cement. This makes an excellent interior finish. However, the cement plaster is usually applied directly to the surface of the corkboard. Either method is thoroughly sanitary and hygienic.



One of the Egg Rooms



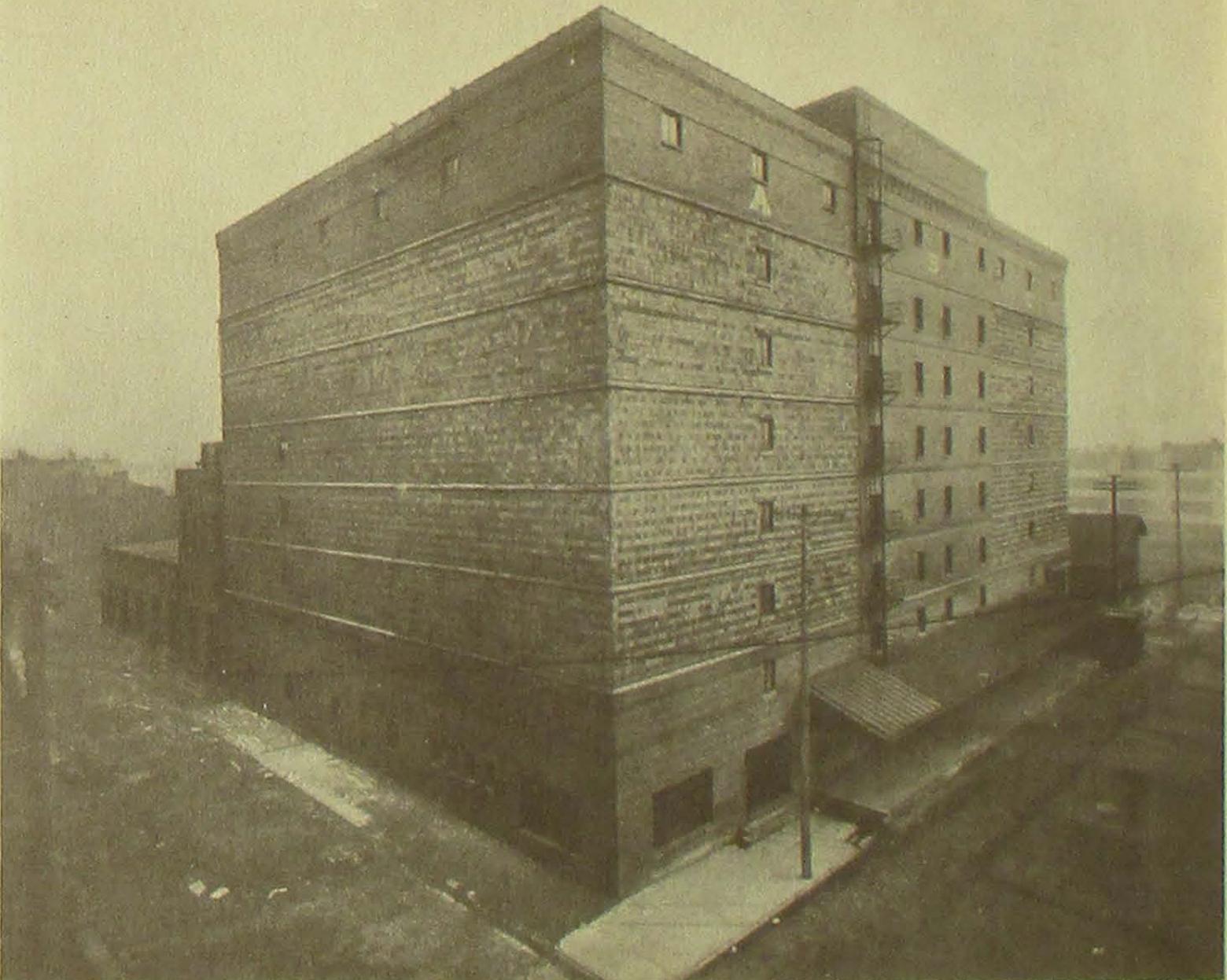
PITTSBURGH TERMINAL WAREHOUSE & TRANSFER COMPANY
PITTSBURGH, PA.

THIS group of warehouses covers three city blocks. The cold storage department, which is in the river end of the building on the right side of this photograph, has a capacity of over 1,000,000 cubic feet. In designing the plant, every possible precaution was taken to minimize the fire risk. Nonpareil Cork is the only cold storage insulating material approved by the National Board of Fire Underwriters and naturally it was used. As it stands, the building takes an insurance rate of one-tenth of one per cent, or ten cents per hundred dollars, while on commodities in the building, the insurance rates are from twenty-five cents to forty-five cents—from fifty per cent to eighty per cent less than elsewhere in the Pittsburgh district.

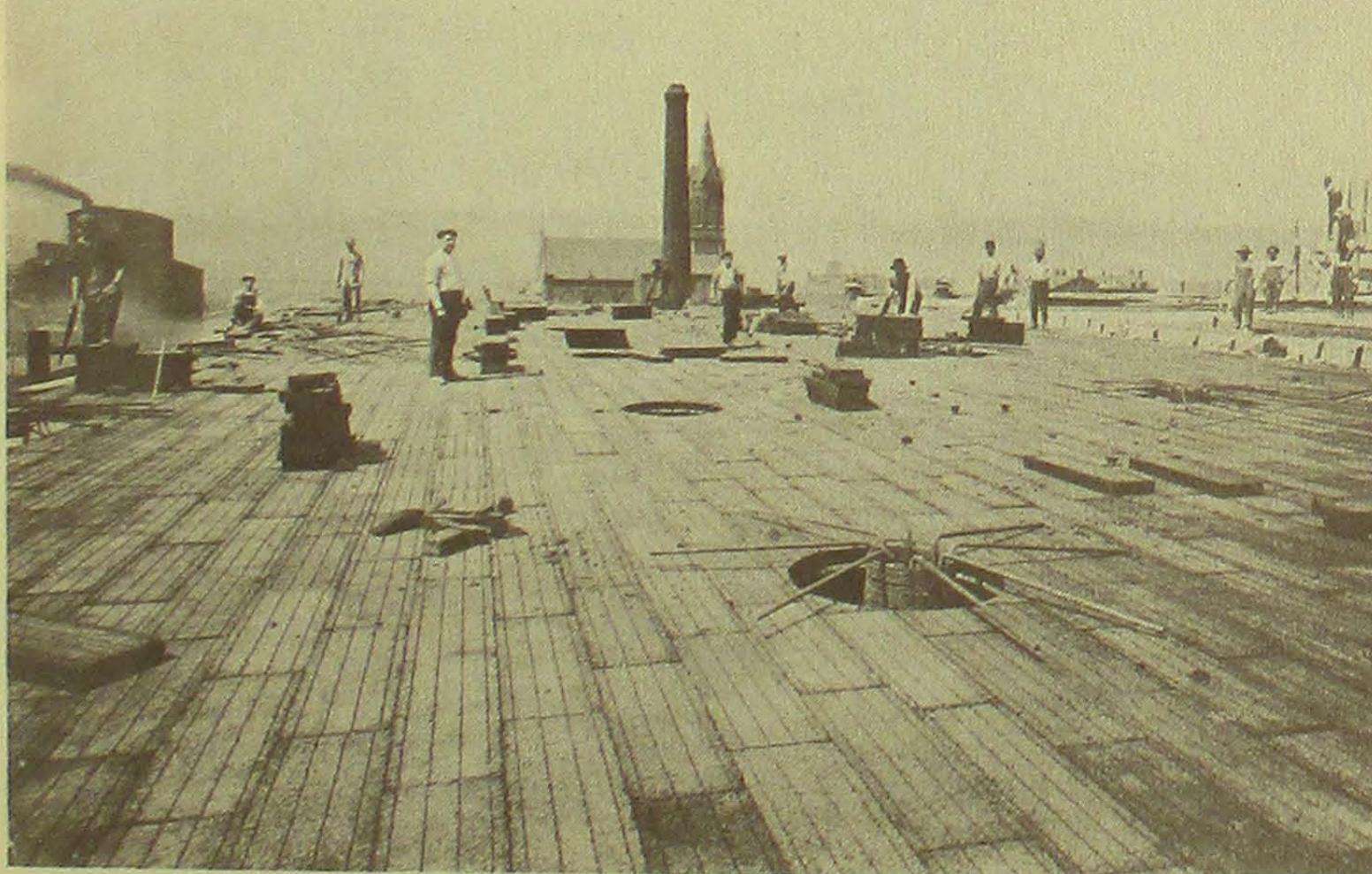
MERCHANTS ICE & COLD
STORAGE COMPANY
CINCINNATI, OHIO

THIS plant was erected in 1908. The interior structure of reinforced concrete carries the load, the outer walls of hollow tile being merely curtain walls, against which the insulation is applied in a continuous sheet, without breaks at the floor levels. It consists of two layers of Nonpareil Corkboard erected in Portland cement, with Portland cement plaster finish. The building is fireproof throughout and commands a low insurance rate. The president of the company wrote under date of February 17, 1910, in part as follows:

"The Nonpareil Corkboard put in by your company has given entire satisfaction and has proven to be not only the best insulation but the most economical. We are able to hold our temperatures at minimum cost. ** We are more than pleased with it and cheerfully recommend it to anybody wanting first-class insulation."



MERCHANTS ICE & COLD
STORAGE COMPANY
CINCINNATI, OHIO

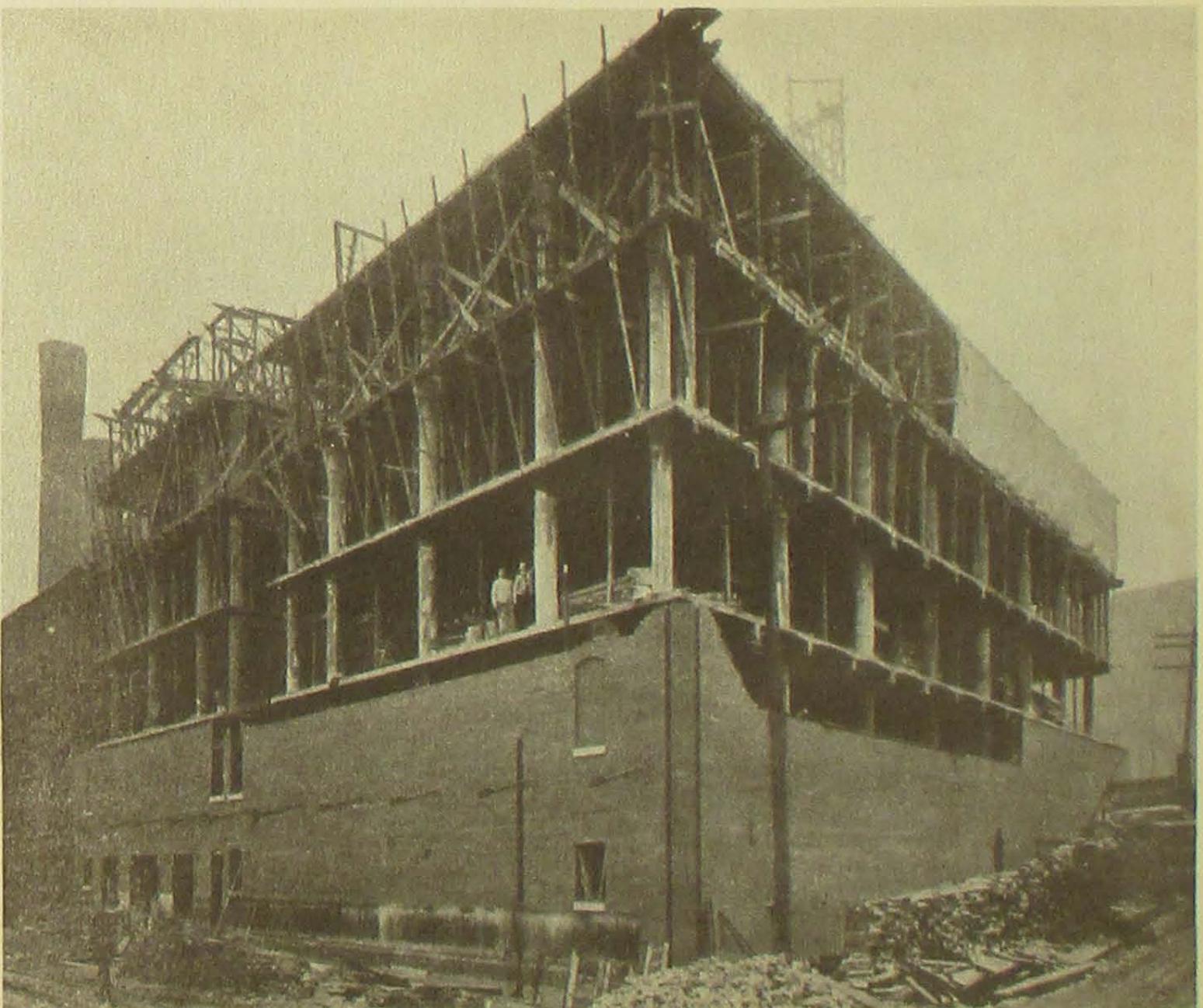


Laying Corkboard on the Forms

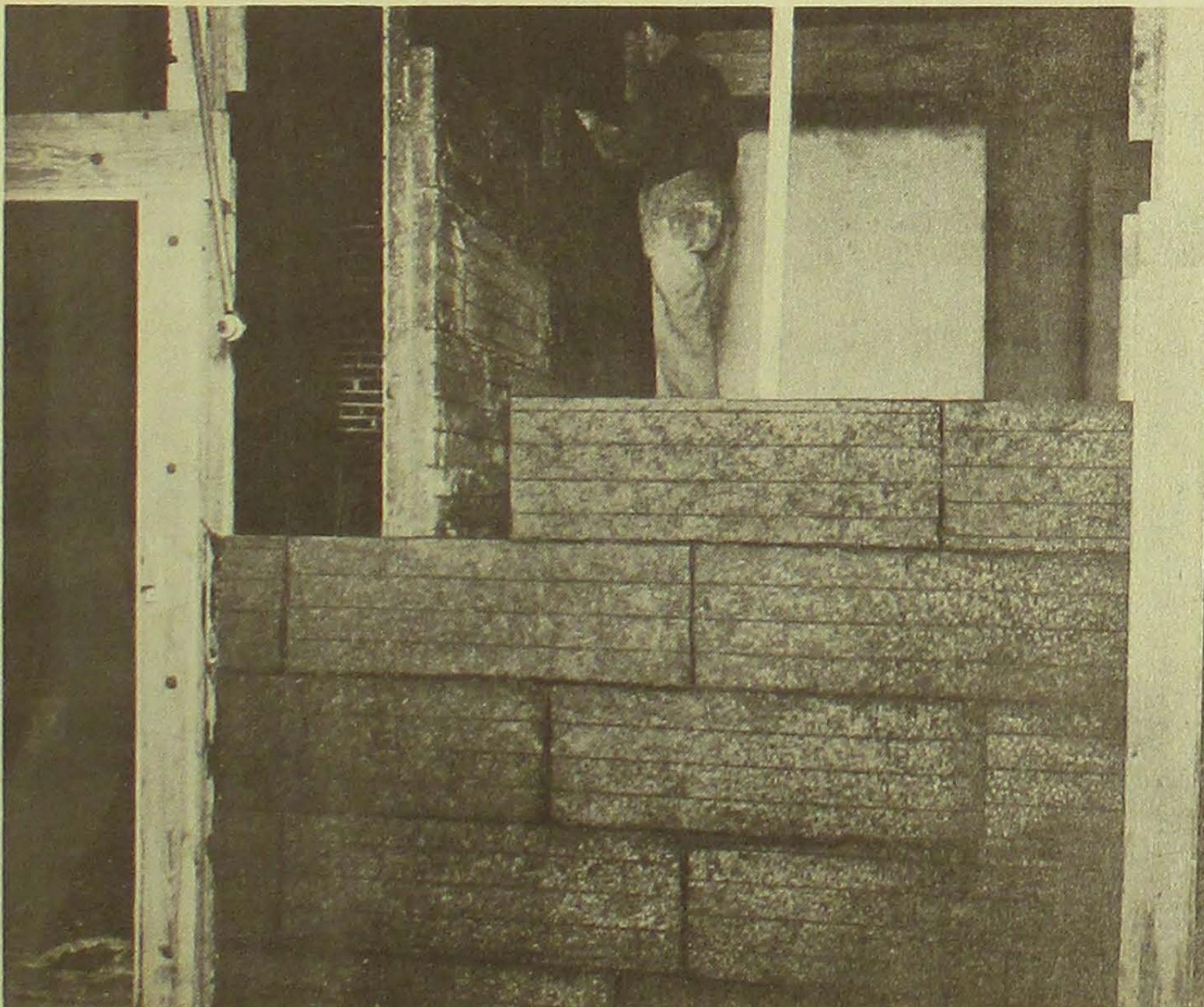
IN insulating the concrete ceilings in this plant, instead of applying Nonpareil Corkboard to the underside of the ceiling slab after completion, the forms were lowered the required distance, the cork sheets laid down on the forms, and the concrete poured in on top. After the forms were removed, the exposed surface of the corkboard was plastered with Portland cement. This method of erection materially decreases the cost of installing ceiling insulation in concrete structures. More than twenty-two carloads of Nonpareil Corkboard were required to execute this contract.

ST. LOUIS REFRIGERATING
& COLD STORAGE COMPANY
ST. LOUIS, MO.

THIS warehouse is one of the newest in the country. The picture shows clearly the interior construction of reinforced concrete, with the brick curtain walls just started. The insulation, which consists of two layers of three-inch Nonpareil Corkboard, erected against the outer walls in Portland cement mortar, completely envelops the building. There are no breaks at the floor levels, or even at the roof line. The wall insulation is carried through the roof slab and connects with the ceiling insulation of the upper floor, which is laid on top. Twenty-seven carloads of Nonpareil Corkboard—543,000 board feet—were required in the execution of this contract.



Under Construction



Erecting Solid Cork Partitions

ST. LOUIS REFRIGERATING
& COLD STORAGE COMPANY
ST. LOUIS, MO.

SOILD cork partitions" form the walls of the bunker and motor rooms in this plant (see preceding page). Sheets of Nonpareil Corkboard are erected edge on edge and plastered on both sides with Portland cement. No studding is required—except at the door openings. This method of constructing partitions saves money and space as well. The structural strength of Nonpareil Corkboard makes it possible. Among other cold storage companies in the West using our materials are the following:

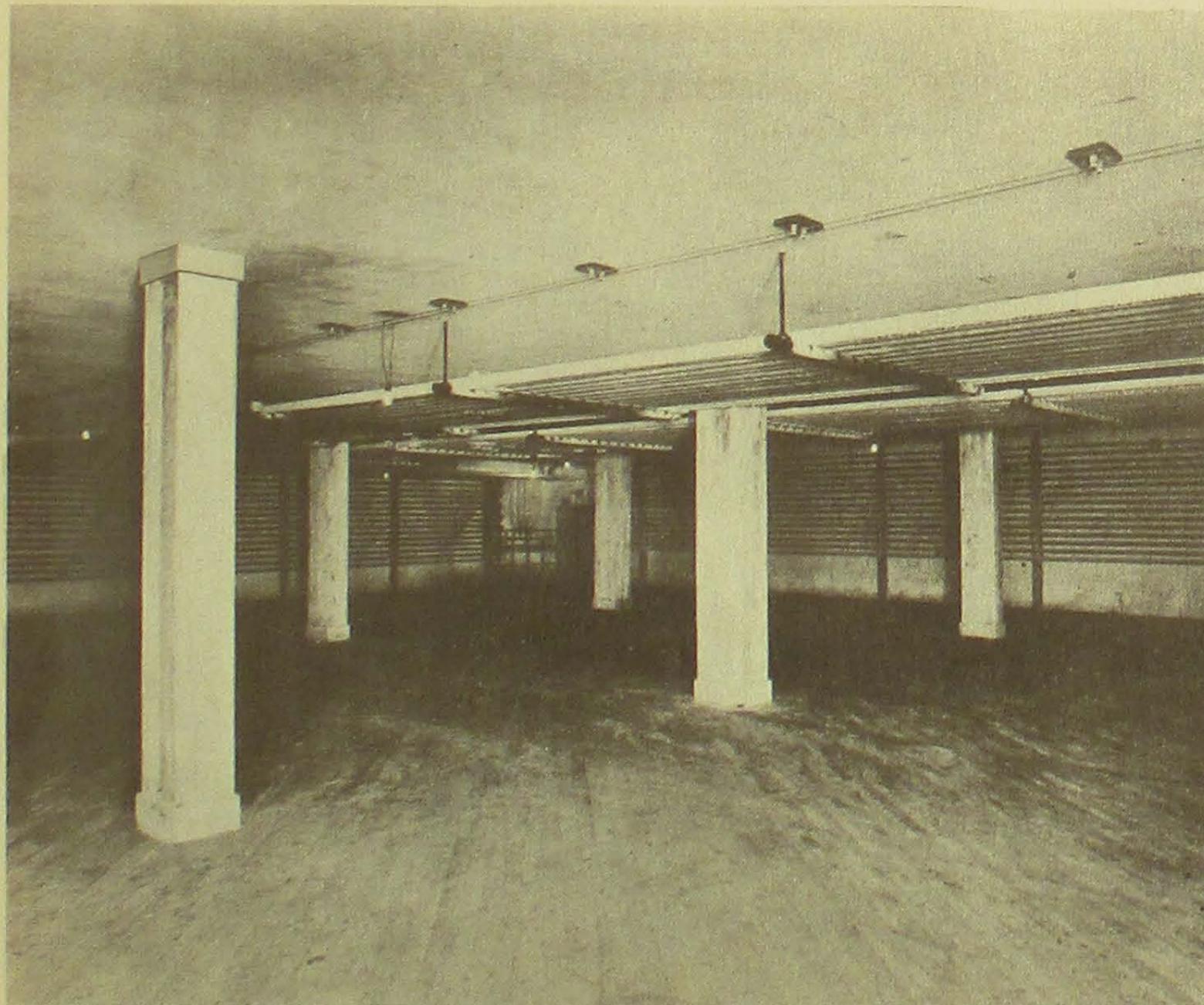
Merchants Refrigerating Company, Kansas City, Mo.
Colorado Ice & Cold Storage Co., Denver, Col.
Merchants Cold Storage Co., San Antonio, Tex.
Utah Ice & Cold Storage Co., Salt Lake City, Utah
Merchants Ice & Cold Storage Co., San Francisco, Cal.
Monotti, Larimer & Co., San Francisco, Cal.

INDIANA REFRIGERATING COMPANY
INDIANAPOLIS, IND.

THIS concern is the successor of the Indianapolis Cold Storage Company. The building was insulated originally with boards and air spaces. After eight years' service the insulation had rotted to such an extent that it had to be torn out entirely and replaced with Nonpareil Corkboard. The experience of this concern should serve as an object lesson against the use of any form of insulation that will absorb moisture. No matter how carefully fibrous materials—wood, sawdust, shavings, mineral wool, cotton seed hulls, etc.—are erected, sooner or later moisture will find its way in and before long the insulation becomes water-soaked, rotten and inefficient.



Tearing Out the Old Wood Insulation



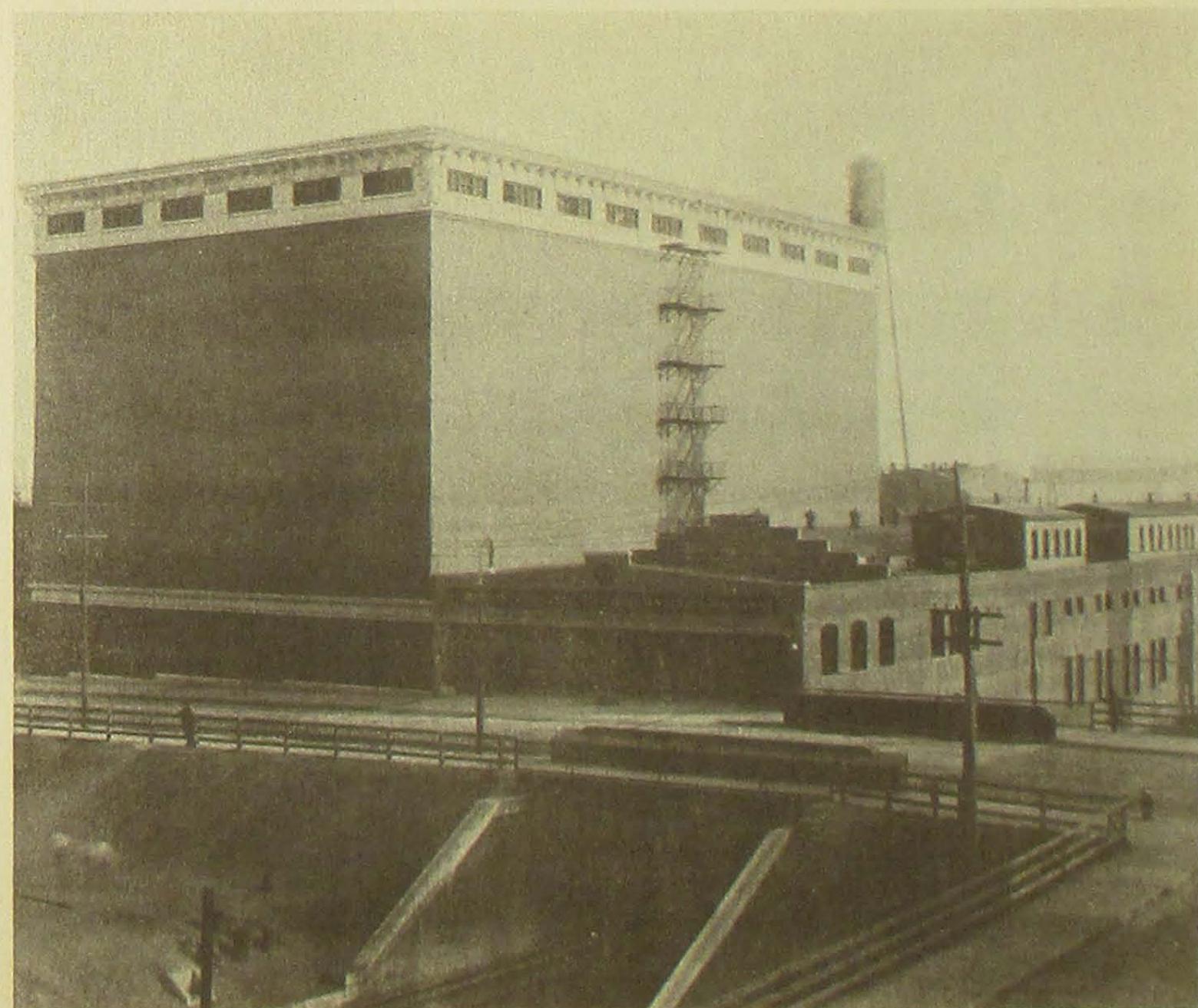
After Nonpareil Corkboard was Installed

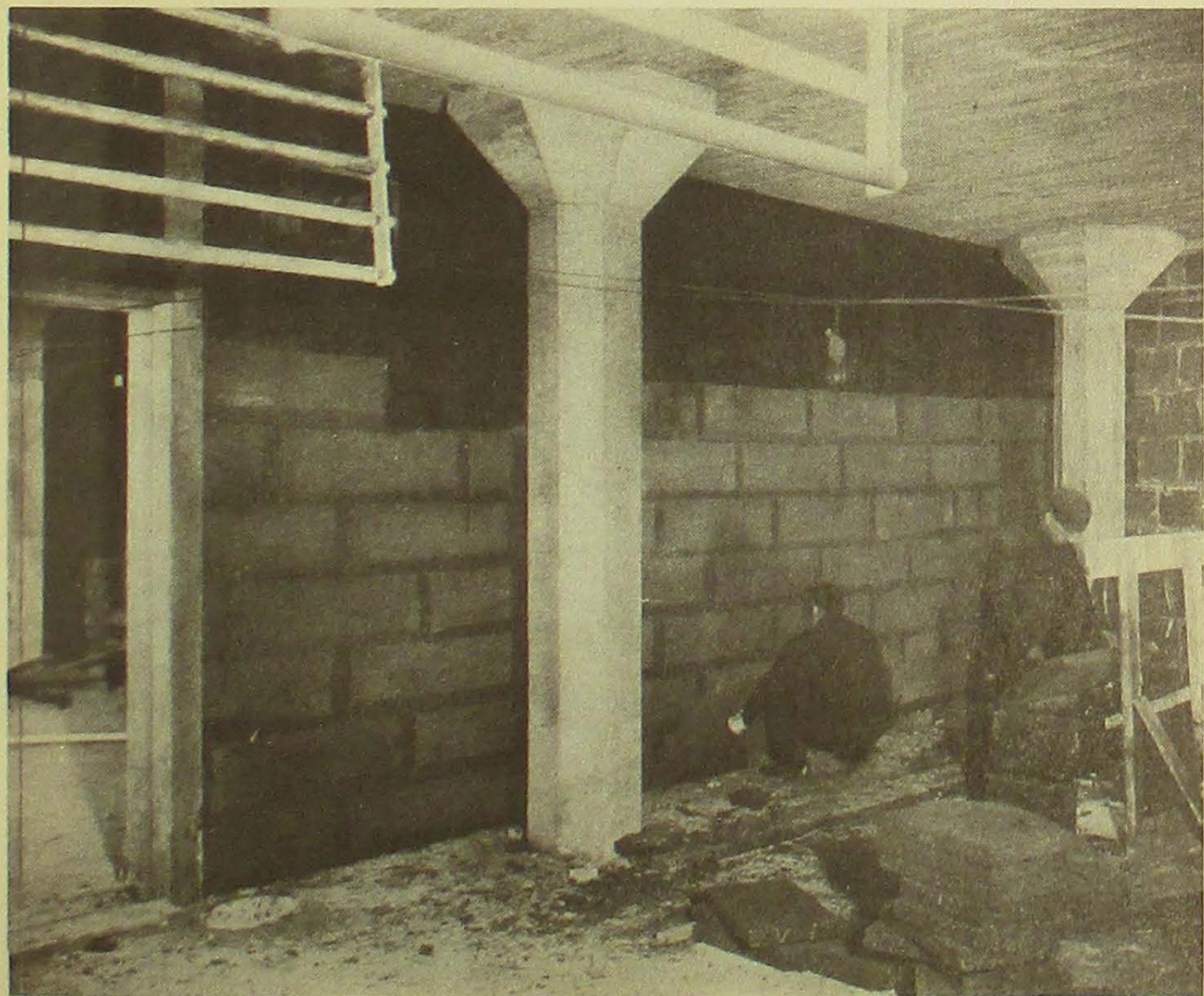
INDIANA REFRIGERATING COMPANY
INDIANAPOLIS, IND.

NONPAREIL Corkboard will not absorb moisture. Being of cellular instead of fibrous structure, it retains its initial efficiency indefinitely. Properly erected it will last as long as the building itself. In durability it far outstrips all competing materials. This picture shows one of the rebuilt storage rooms (see preceding page), in this plant. The results obtained since Nonpareil Corkboard was installed have been extremely satisfactory. Eighteen carloads were required in the execution of this contract.

BOSTON TERMINAL
REFRIGERATING COMPANY
BOSTON, MASS.

THIS is one of the most scientifically insulated buildings in the country. The load of the building and its contents is carried entirely by the interior structure of reinforced concrete. The outside walls are composed of one course of four-inch vitrified waterproof brick and one course of eight-inch hollow tile, (strengthened by a light, steel frame), against which the insulation is applied from the basement to the top floor without breaks at the floor levels. It consists of two courses of two-inch Nonpareil Corkboard, erected in asphalt cement and faced on the inside with four-inch hollow tile, extending from the floor slab to the ceiling slab of each floor. More than 600,000 board feet—thirty carloads—of Nonpareil Corkboard were used.





Erecting Partition Insulation

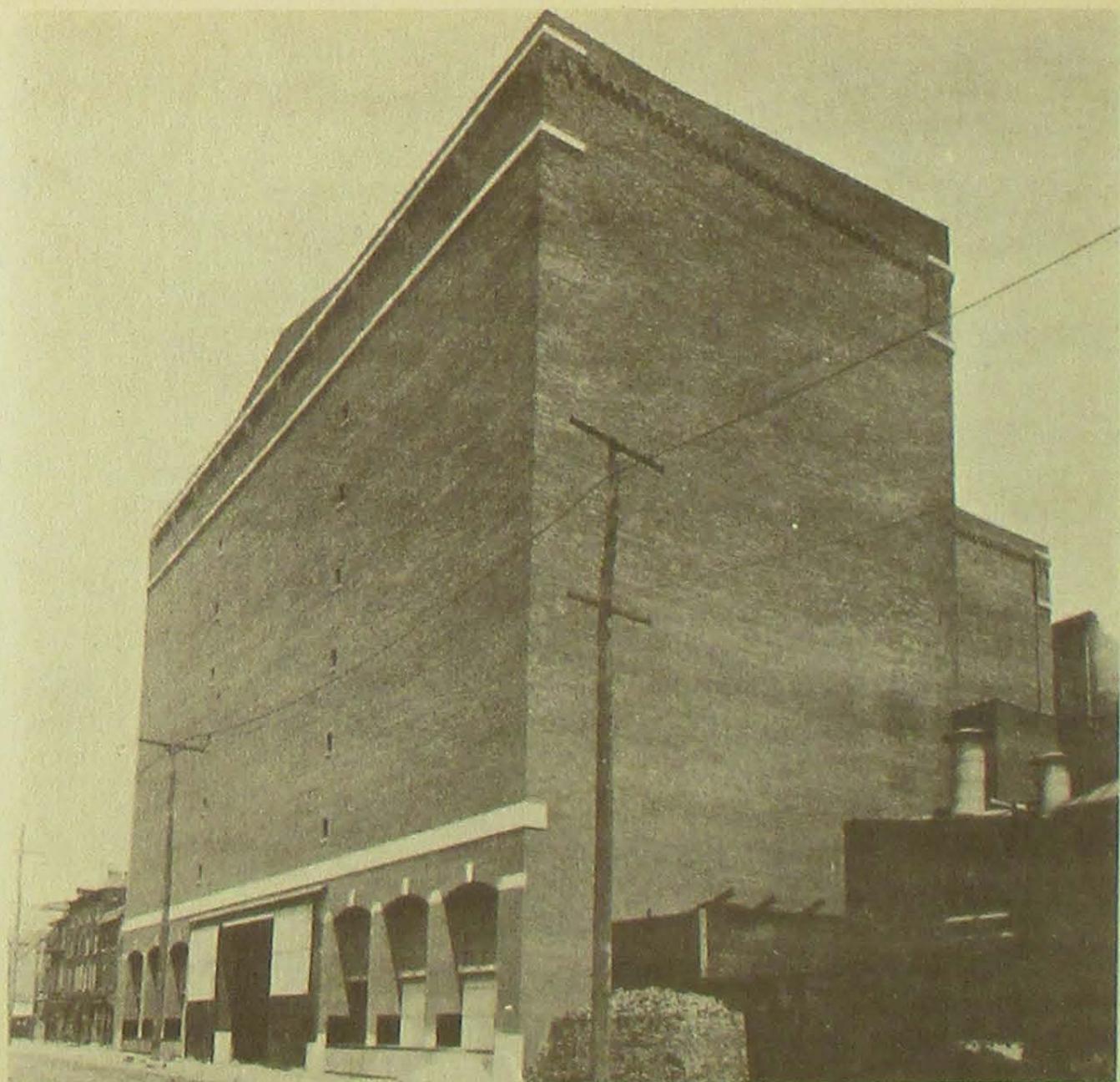
BOSTON TERMINAL
REFRIGERATING COMPANY
BOSTON, MASS.

ALL the partitions in this building consist of two layers of two-inch Nonpareil Corkboard erected in asphalt cement, and faced with one course of four-inch hollow tile on each side. All the partition insulation is continuous and connects with the wall insulation. The results obtained have been remarkably satisfactory. When the refrigeration was first turned on, the large empty rooms—the coolers are 152 feet long, 48 feet wide and almost 11 feet high—were reduced to 0° F. in less than seventy-two hours. During the summer of 1910 but 5700 pounds of coal were required per day to supply refrigeration, light and power for the entire building, containing 1,500,000 cubic feet of refrigerated space.

PHILADELPHIA WAREHOUSING
& COLD STORAGE COMPANY
PHILADELPHIA, PA.

THIS immense plant is the latest addition to the cold storage warehouse system of the East. It is insulated throughout with Nonpareil Corkboard, erected by our Philadelphia representative, Mr. John R. Livezey. More than forty carloads were required—making this insulation contract one of the largest ever executed. Among other important cold storage warehouses in the East insulated with Nonpareil Corkboard are the following:

Pennsylvania Cold Storage & Market Co.,
Philadelphia, Pa.
Delaware Freezing Co., Philadelphia, Pa.
Reading Ice & Cold Storage Co., Reading, Pa.
Bronx Refrigerating Co., New York, N. Y.
Manhattan Refrigerating Co., New York, N. Y.
Buffalo Cold Storage Co., Buffalo, N. Y.
Boston Cold Storage Co., Boston, Mass.





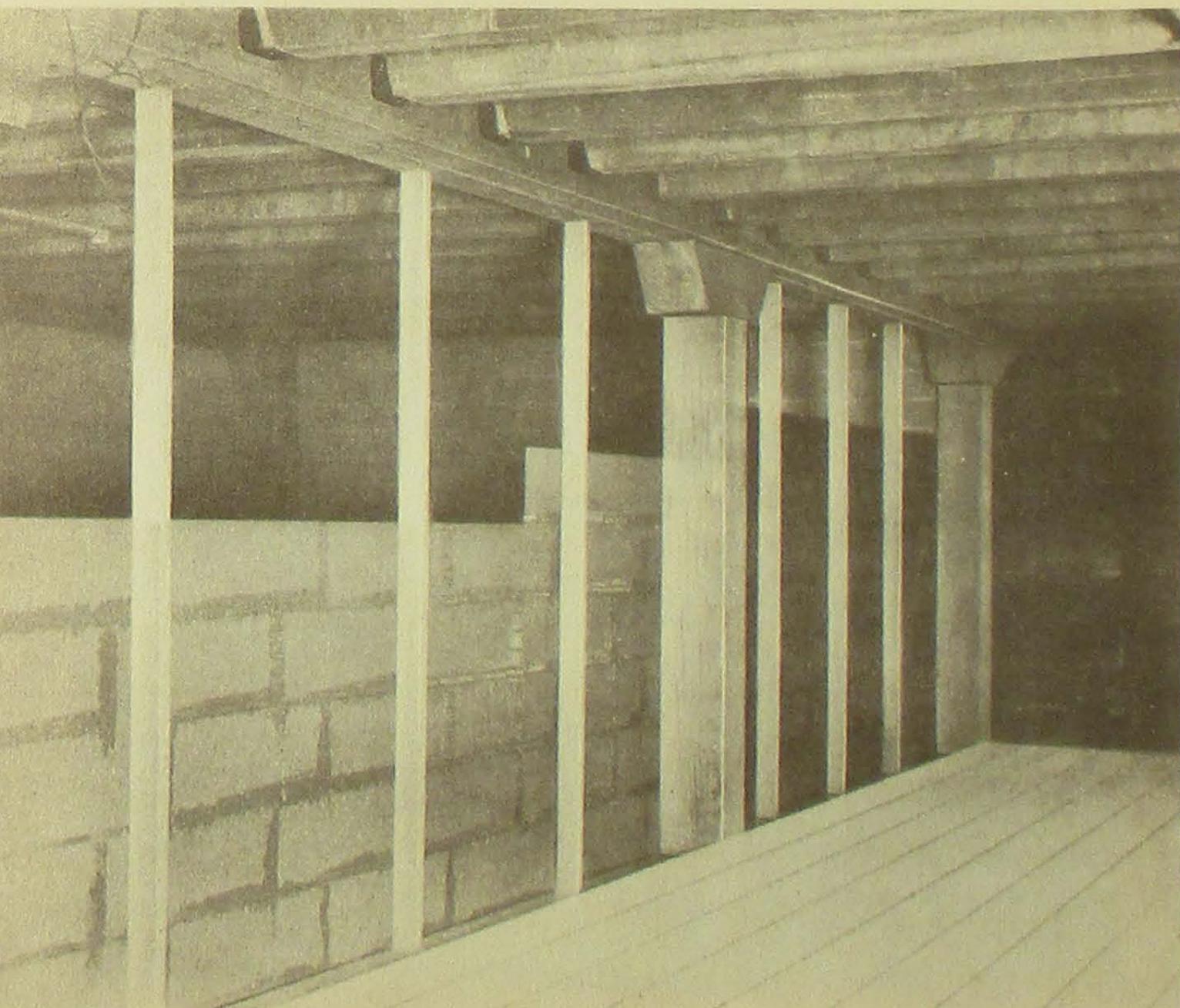
THE NEWARK ICE & COLD
STORAGE COMPANY
NEWARK, OHIO

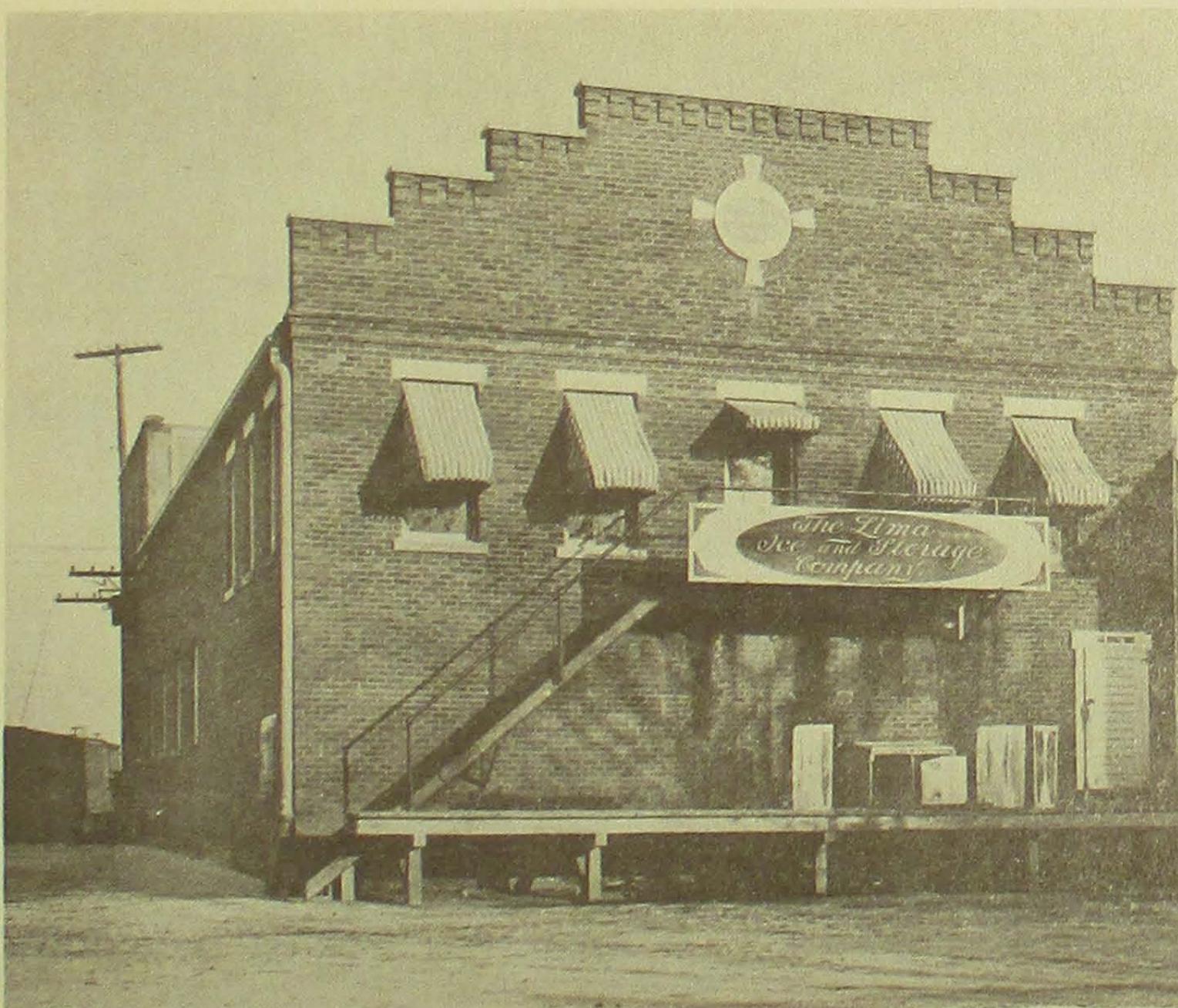
THIS plant is insulated with approximately 80,000 feet, board measure, of Nonpareil Corkboard. Before awarding the contract, the owners carefully investigated the various types of insulation on the market and finally decided to use Nonpareil Corkboard, despite the fact that it cost them a little more at the outset. It is to this type of buyer, the man who is willing to weigh present figures in the light of future returns, that Nonpareil Corkboard makes its special appeal. The old saying—"The best is cheapest in the end"—is particularly applicable to cold storage insulation.

THE NEWARK ICE & COLD
STORAGE COMPANY
NEWARK, OHIO

THE majority of the partitions in this plant are so-called "Solid Cork Partitions." That is, they consist of three-inch sheets of Nonpareil Cork-board erected edge on edge, securely toenailed together and plastered on both sides with Portland cement. They are remarkably strong, and save space and the cost of studding otherwise required. The manager of the plant writes as follows:

"Regarding the cork insulation board with which you insulated our concrete block storage building, we desire to say that it seems to come up to all you said for it. The solid cork walls, about which the writer had some doubt, have also entirely come up to your guarantee. They seem as solid as a brick wall, although the corkboard is but three inches thick, with cement plaster on each side. We have not regretted that we adopted Nonpareil Cork-board for insulation."



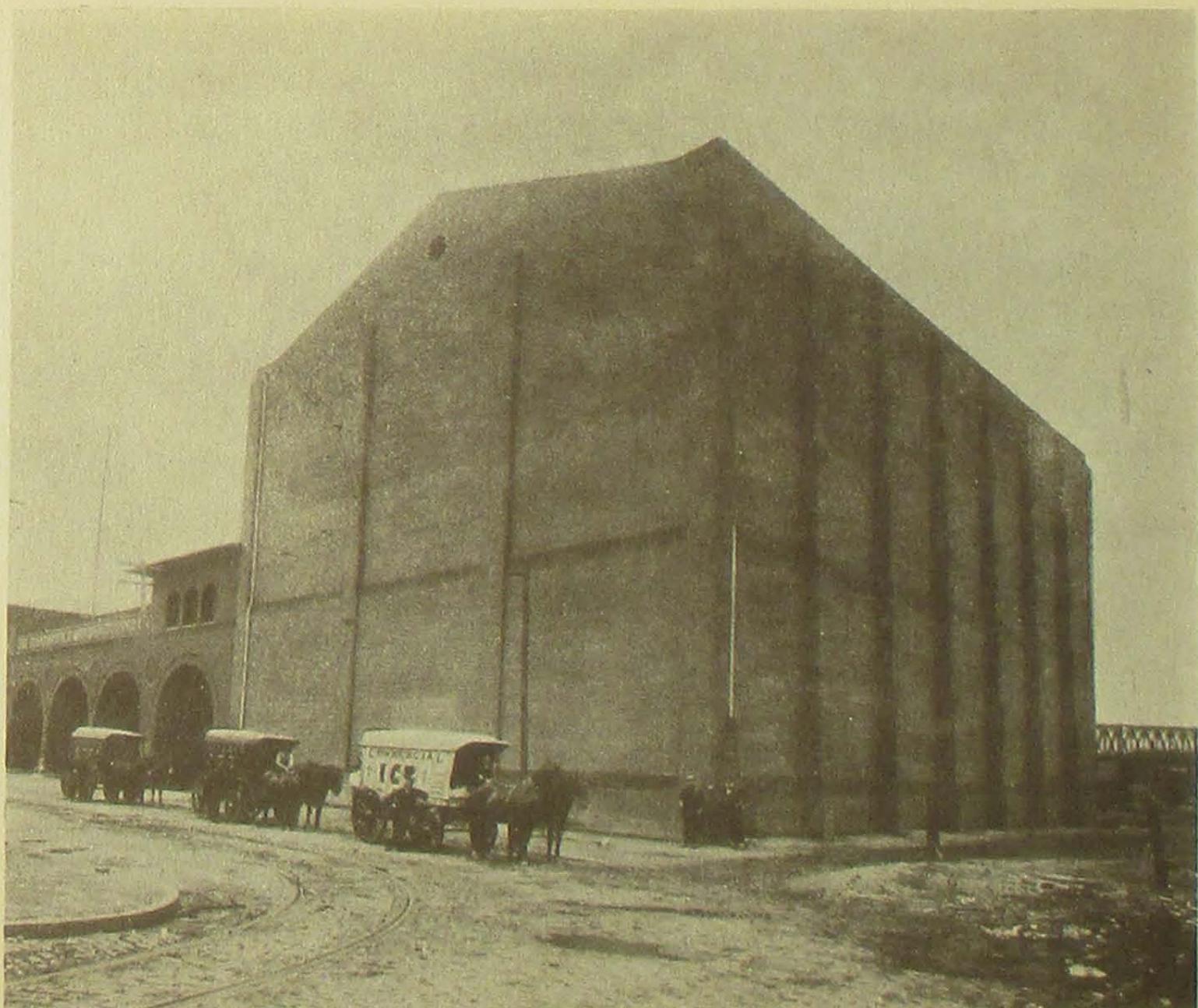


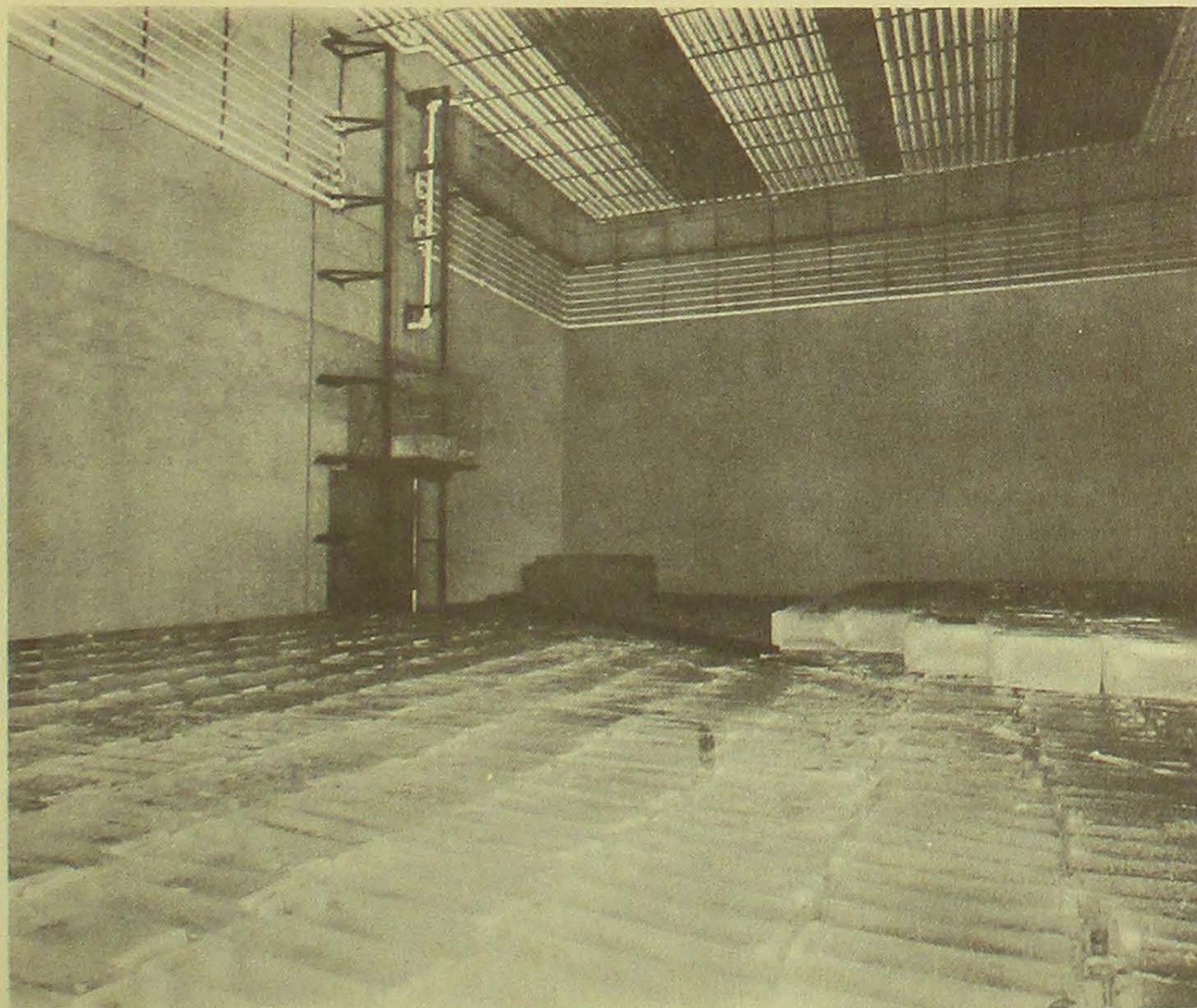
LIMA ICE & STORAGE COMPANY
LIMA, OHIO

THIS plant is typical of hundreds throughout the country that are insulated with Nonpareil Corkboard. The man who has a small cold storage warehouse is just as quick to realize the advantages of good insulation as the man who owns and operates a large plant. More than eight hundred ice and cold storage companies are numbered among our customers.

STANDARD ICE MFG. COMPANY
PHILADELPHIA, PA.

THIS is the largest artificial ice storage ever built, the capacity being 10,000 tons. The building is brick, 113 feet long, 78 feet wide and 60 feet high. The roof is reinforced concrete. The insulation consists of four inches of Nonpareil Corkboard on the walls and floor and three inches on the ceiling. The contract was executed by our Philadelphia representative, Mr. John R. Livezey. Over seven carloads of Nonpareil Cork were required.





STANDARD ICE MFG. COMPANY
PHILADELPHIA, PA.

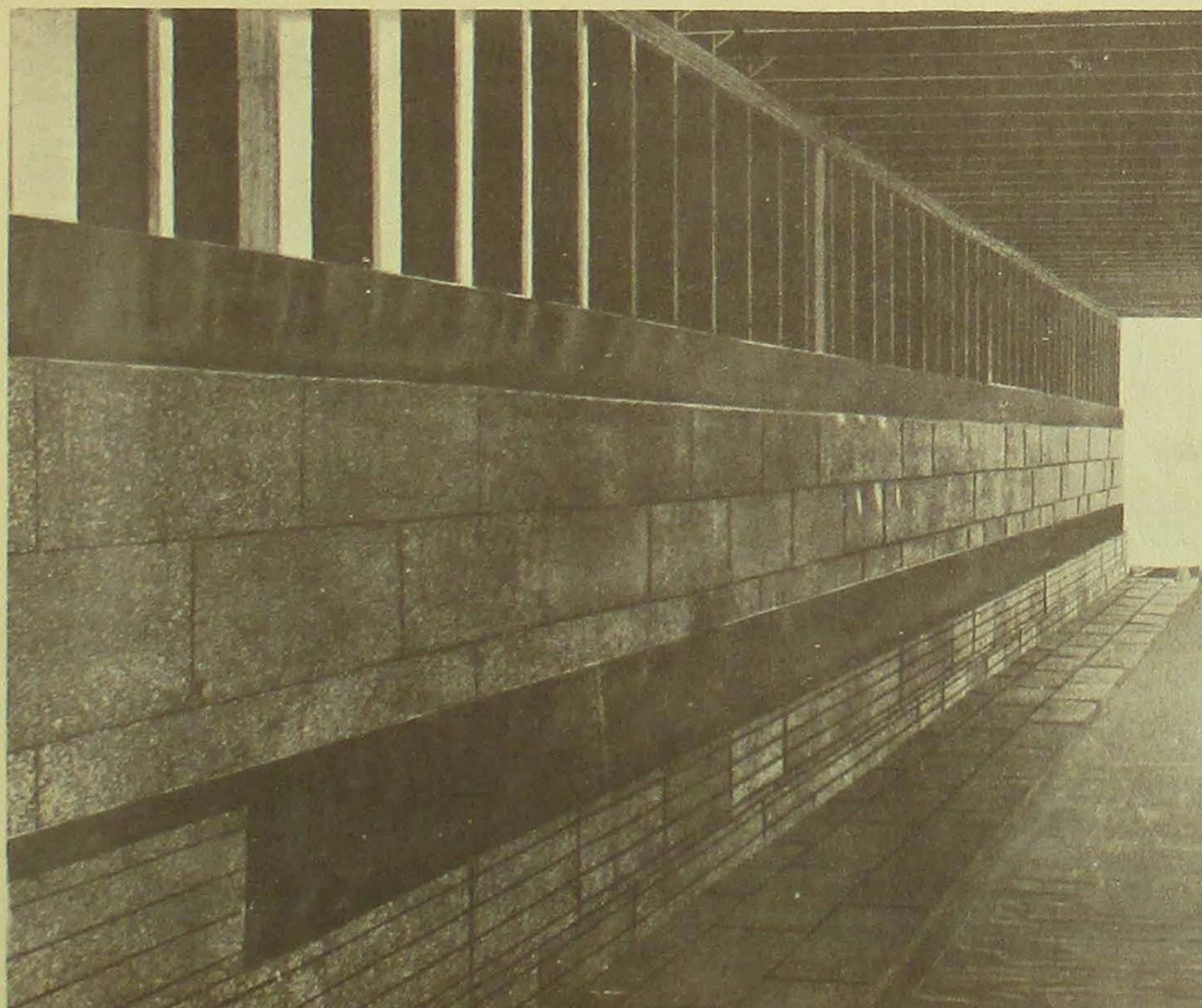
THIS house is piped with two-inch direct expansion piping in the proportion of one lineal foot of pipe to thirty-eight cubic feet of space. During the summer months, however, a temperature of 22° is readily maintained with only half the coils in use, all of which speaks pretty well for the insulation. Our many customers among the ice manufacturers include the following:

Peoples Hygienic Ice Mfg. Co., Brooklyn, N.Y.
Washington Market Co., Washington, D. C.
Atlantic Ice & Coal Corporation, Atlanta, Ga.
Cincinnati Ice Co., Cincinnati, Ohio
City Ice Delivery Co., Cleveland, Ohio
Chicago Artificial Ice Co., Chicago, Ill.
Polar Wave Ice & Fuel Co., St. Louis, Mo.

INTERSTATE ICE COMPANY
SANDUSKY, OHIO

OUR many customers among the ice manufacturers are not confined solely to the United States, Canada and Mexico. They are found in Australia, the Malay Peninsula, China, the Philippines, Hawaii, in Central and South America, in Cuba, and the British Isles. More than thirty ice and cold storage plants in Australia alone are using Nonpareil Corkboard.



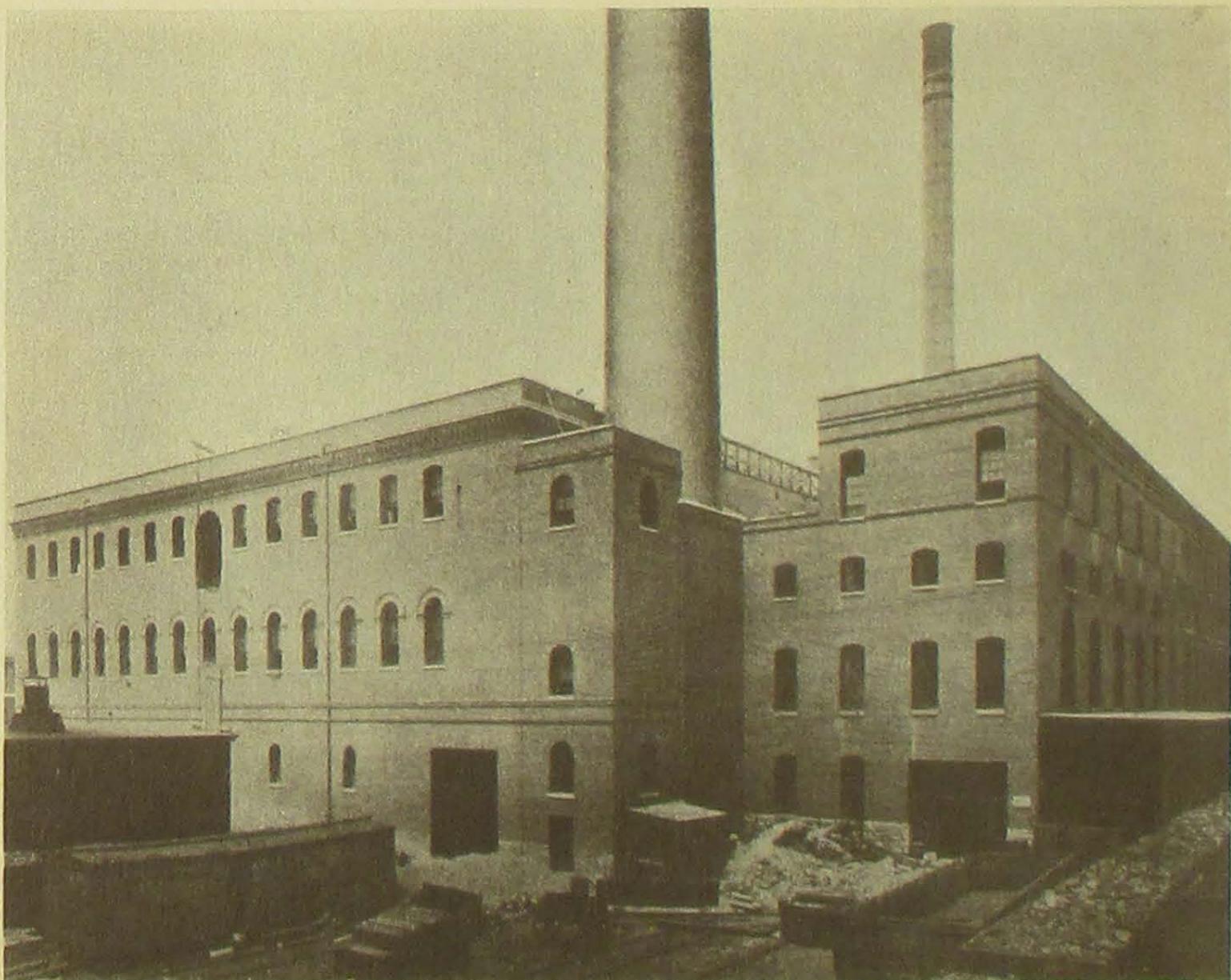


ROSWELL GAS COMPANY
(Ice Manufacturers)
ROSWELL, N. M.

THE ease with which Nonpareil Corkboard may be erected is one of its chief points of merit. It is manufactured in sheets 12 x 36 inches, 1, 1½, 2 and 3 inches thick, and may be cut and sawed just like lumber. In frame structures, it is simply nailed in place with galvanized wire nails, as shown in this photograph. Against brick, stone, concrete or hollow tile walls and ceilings, it is erected in Portland cement mortar. Portland cement plaster adheres readily to the surface, affording a sanitary and hygienic finish. In insulating floors and the bottoms of freezing tanks, Nonpareil Corkboard is put down in hot asphalt, and the wearing floor or the tank placed directly on top.

ANHEUSER - BUSCH
BREWING ASSOCIATION
ST. LOUIS, MO.

THIS concern, known the world over, has used large quantities of Nonpareil Corkboard, not only in its plant in St. Louis, but also in many of its branches. The contracts executed for this company include the insulation of the famous Stock House No. 10 at St. Louis, the largest in the world, its large distributing branch and cold storage warehouse in Norfolk, Va., its branches in Richmond, Chicago, Detroit, San Francisco, etc. This view shows its new 600-ton ice plant and storage, having a capacity of 2500 tons, built in St. Louis in 1910. More than fourteen carloads of Nonpareil Corkboard were required in the execution of this job alone.





HYDE PARK BREWERY
ST. LOUIS BREWING ASSOCIATION
ST. LOUIS, MO.

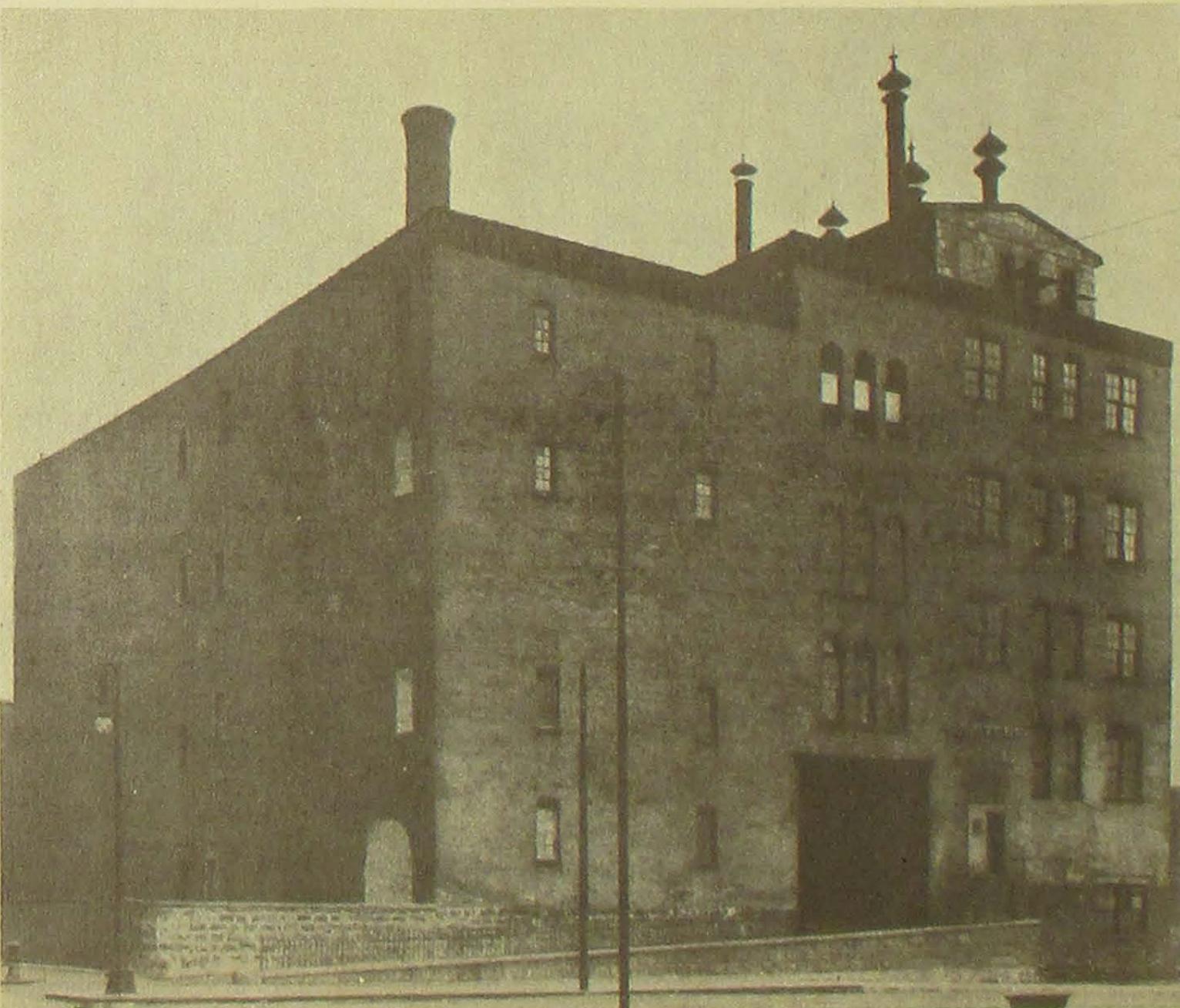
THE two buildings in the center of this picture and the one on the left are insulated throughout with Nonpareil Corkboard, more than seven car-loads, all told, having been required in the execution of the work. Our list of brewery customers in St. Louis alone includes the following:

Anheuser-Busch Brewing Association
Wm. J. Lemp Brewing Company
Green Tree Brewery
Klausmann Brewery
Brinckwirth-Nolker Brewery
Lafayette Brewery
Union Brewing Company
Wainwright Brewery

E. R. STEGE BREWERY
CHICAGO, ILL.

THE walls of this stockhouse are lined with one course of three-inch Nonpareil Corkboard, erected in cement mortar and finished off with Portland cement plaster. The efficiency, compactness and durability of this method of insulation appeal to every experienced brewer. Among our other customers in Chicago and the neighboring city of Milwaukee, are:

P. Schoenhofen Brewing Co., Chicago, Ill.
Atlas Brewing Co., Chicago, Ill.
Gottfried Brewing Co., Chicago, Ill.
Keeley Brewing Co., Chicago, Ill.
McAvoy Brewing Co., Chicago, Ill.
Wacker & Birk Brewing Co., Chicago, Ill.
West Side Brewing Co., Chicago, Ill.
Pabst Brewing Co., Milwaukee, Wis.
Schlitz Brewing Co., Milwaukee, Wis.
Fred Miller Brewing Co., Milwaukee, Wis.



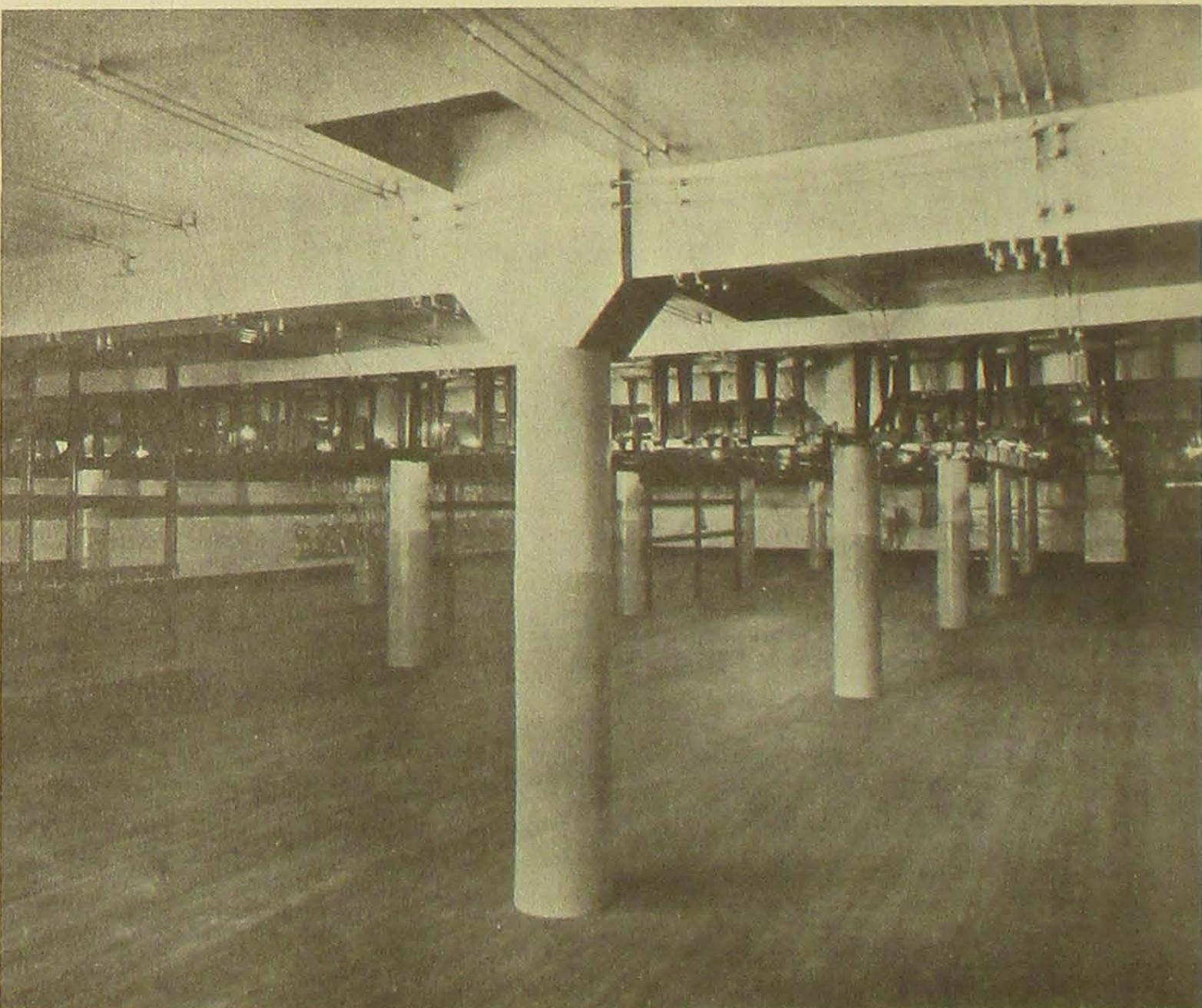
CONSUMERS BREWING COMPANY
NORFOLK, VA.



ALL told, more than 500 breweries in the United States, Canada and Mexico are numbered among our customers. Not only the larger, but also the smaller brewing concerns have been quick to realize the superiority of Nonpareil Cork over all other forms of cold storage insulation. Its efficiency, its durability, its approval by the National Board of Fire Underwriters, combined with the fact that it is so easy to put up, have established its position in the brewing industry as the standard form of insulation.

SWIFT & COMPANY
PITTSBURGH, PA.

SWIFT & COMPANY have dozens of branch houses all over the country. This is a typical view of the interior of one of their meat coolers, insulated with Nonpareil Corkboard. They found long ago that although Nonpareil Corkboard may cost a little more at the outset than other forms of insulation, it costs less in the long run. As a result, they have now adopted it as their standard form of insulation. The purchases of this one concern aggregate more than 5,000,000 board feet. They have installed Nonpareil Corkboard in their packing plants in Chicago, Kansas City, East St. Louis, St. Joseph, Omaha, Ft. Worth and South St. Paul and in forty or more selling branches throughout the United States.





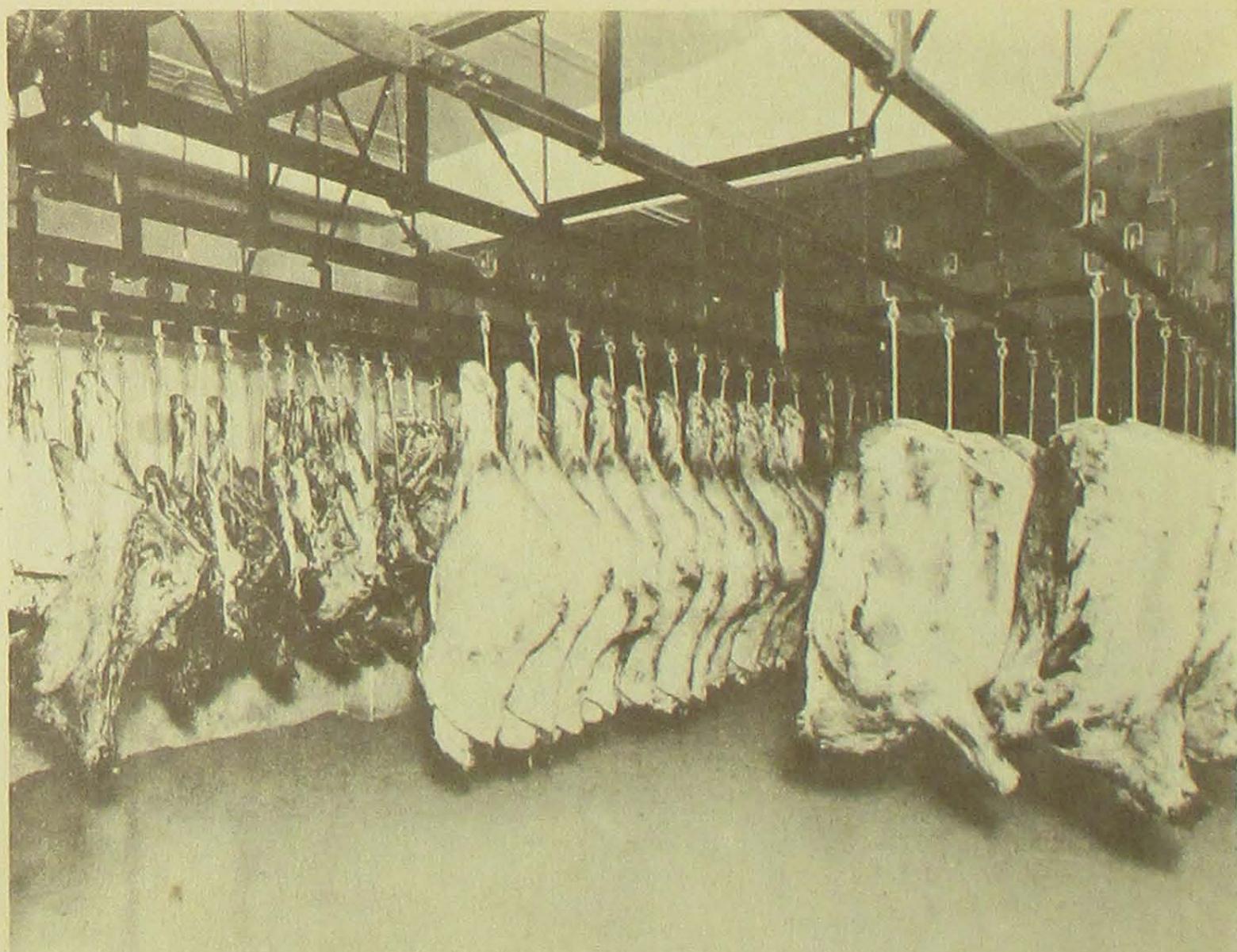
SWIFT & COMPANY
NORFOLK, VA.

THIS view was taken during the construction of Swift & Company's branch house at Norfolk, Va. All the cold storage rooms in this building are insulated with Nonpareil Corkboard. Among the other prominent packers who have used large quantities of Nonpareil Corkboard, may be mentioned the following:

Armour & Co.
Morris & Co.
Cudahy Packing Co.
Schwarzchild & Sulzberger Co.
Kingan & Co.
John Morrell & Co.
Jacob Dold Packing Co.
Pittsburgh Provision & Packing Co.
D. B. Martin Co.

KINGAN & COMPANY
WASHINGTON, D. C.

THIS shows a typical meat cooler in one of Kingan & Company's selling branches. This concern has used Nonpareil Corkboard also in its plants in Indianapolis, Pittsburgh, Baltimore, Richmond and Philadelphia. Almost three hundred meat packing concerns are to be found in our list of customers.





NEW YORK BUTCHERS
DRESSED BEEF COMPANY
NEW YORK, N. Y.

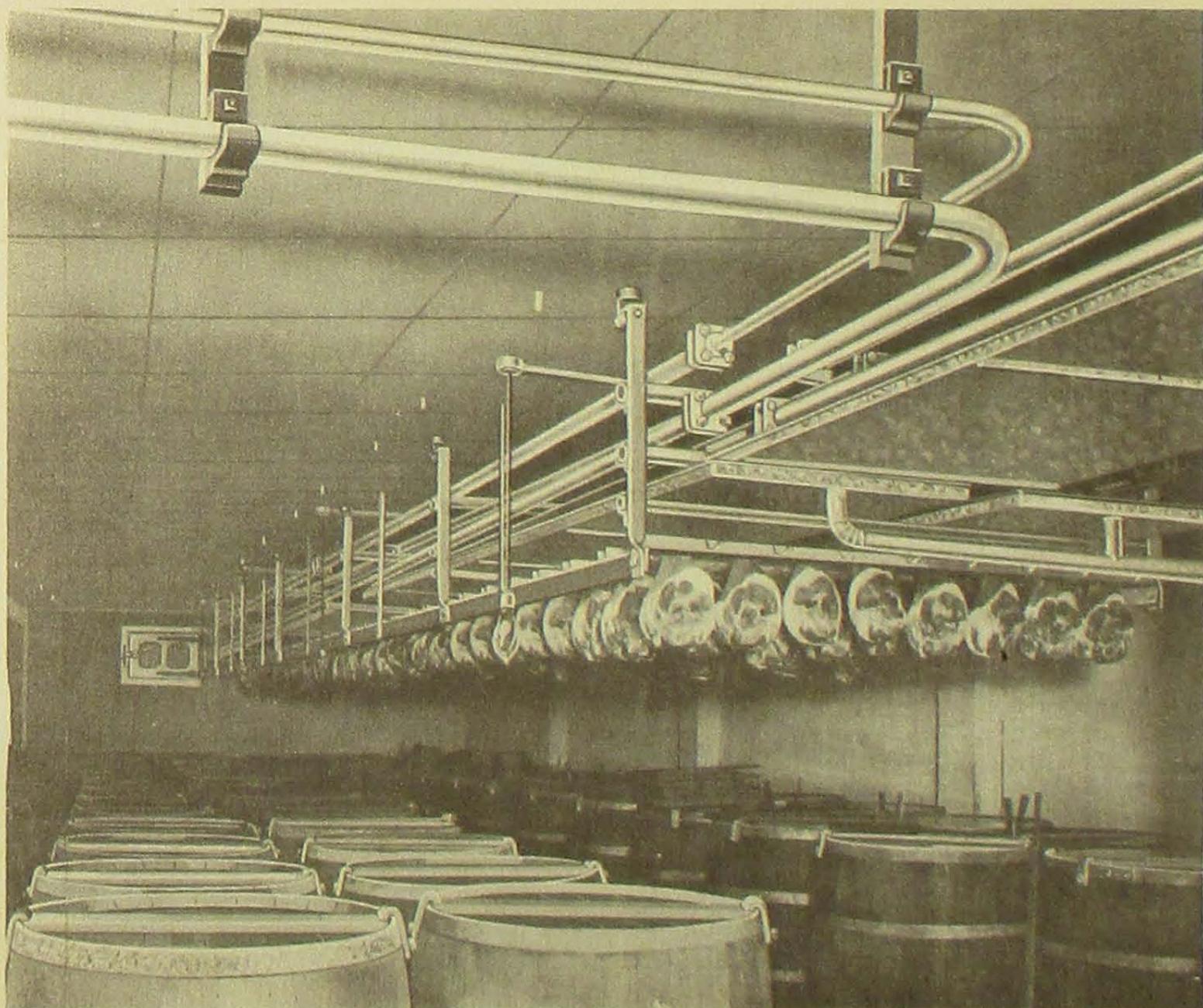
THE decision to use Nonpareil Cork-board in insulating this plant was reached only after exhaustive tests on practically every available form of insulating material. These tests were made by experts under the direction of the engineers in charge, and extended over a period of several months. The results achieved in five years' successful operation have demonstrated conclusively the superiority of Nonpareil Corkboard. Among other prominent eastern packers who use the material are the following:

Arbogast & Bastian, Allentown, Pa.
Jacob Ulmer Packing Co., Pottsville, Pa.
J. Shallcross & Son, Coatesville, Pa.
Reading Abattoir Co., Reading, Pa.
Union Abattoir Co., Baltimore, Md.
Louis Burk, Philadelphia, Pa.
North Packing & Provision Co., Worcester,
Mass.
W. S. Forbes & Co., Richmond, Va.

J. & F. SCHROTH PACKING COMPANY
CINCINNATI, OHIO

THIS pickling cellar is insulated throughout with Nonpareil Cork-board. The surface is plastered with Portland cement, rendering it easy to maintain sanitary and hygienic conditions—a point of such great importance in any plant having to do with the production or distribution of food products. Among our other customers in Cincinnati are numbered:

J. C. Roth Packing Co.
The Cincinnati Abattoir Co.
The Cincinnati Beef Co.
John Hoffman Packing Co.
H. H. Meyer Packing Co.



CRANE ICE CREAM COMPANY
PHILADELPHIA, PA.



THE hardening rooms in this plant are insulated with five inches of Nonpareil Corkboard, erected in Portland cement. A five-gallon can of cream can be hardened in from four to five hours. So efficient is the insulation that the refrigeration does not have to be kept on constantly—although the direct expansion system is used. Among other prominent plants in the East, insulated with Nonpareil Corkboard, are the following:

Weed Ice Cream Co., Brooklyn, N. Y.
Hoefler Ice Cream Co., Buffalo, N. Y.
Rochester Ice Cream Co., Rochester, N. Y.
Boston Ice Cream Co., Boston, Mass.
J. T. Castles Ice Cream Co., Irvington, N. J.
Edward E. Rieck Co., Pittsburgh, Pa.
Gardiner Dairy Co., Baltimore, Md.
Chapin & Sacks Mfg. Co., Washington, D. C.

McBRIDE BROTHERS & KNOBBE
CHICAGO, ILL.

IN an ice cream plant, Nonpareil Cork-board makes for cleanliness and purity of product by rendering it easy to maintain sanitary and hygienic conditions. More than 37,000 board feet are installed in this particular factory. The dry hardening rooms are giving excellent results. Our customers in the West include among others:

Goodman-American Ice Cream Co., Chicago,
Ill.

Collins Ice Cream Co., Chicago, Ill.

Ives Ice Cream Co., Minneapolis, Minn.

Detroit Creamery Co., Detroit, Mich.

Telling Bros. Ice Cream Co., Cleveland, Ohio

Ohio Dairy Co., Toledo, Ohio

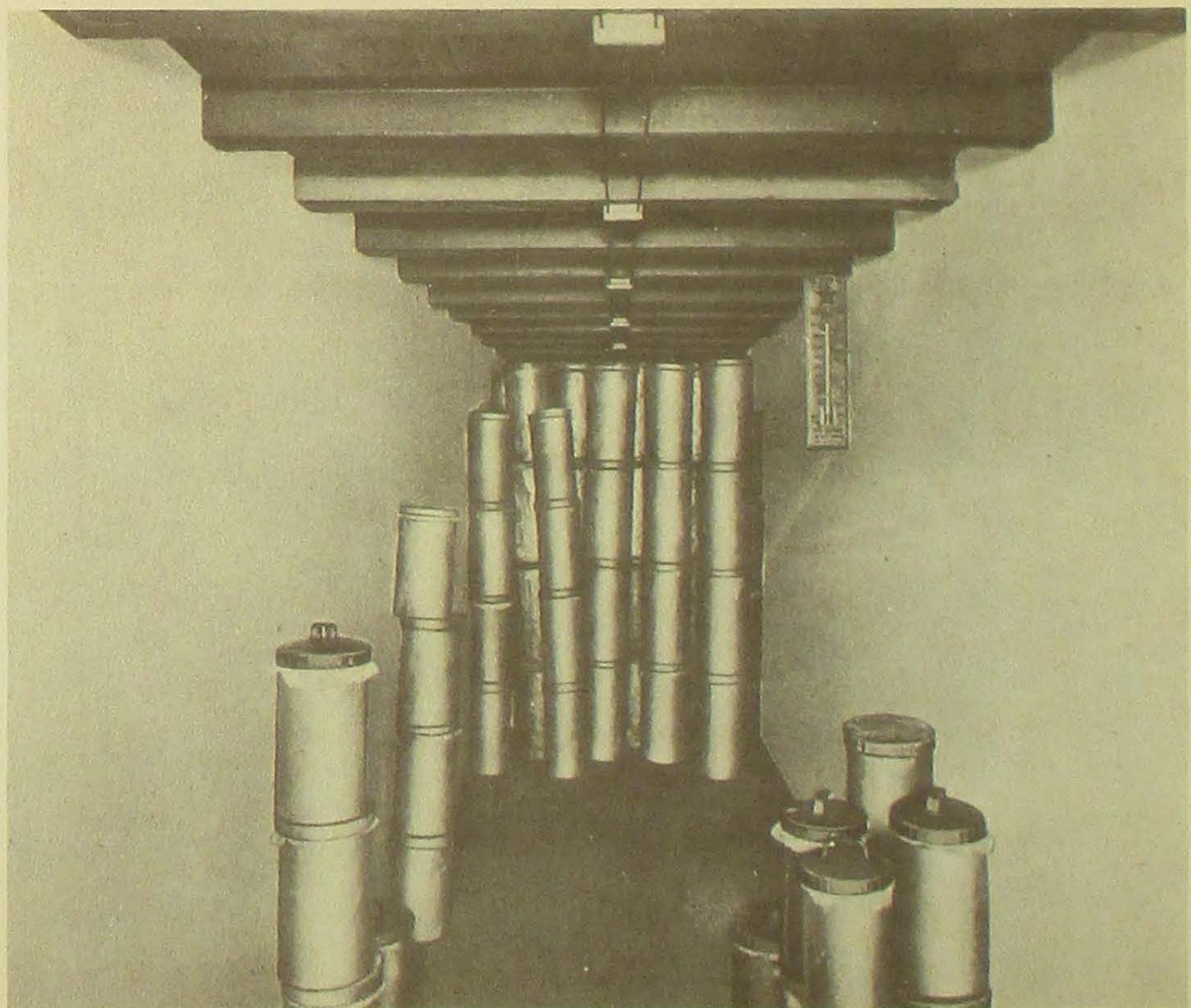
French Bros.-Bauer Co., Cincinnati, Ohio

Busy Bee Candy Co., St. Louis, Mo.

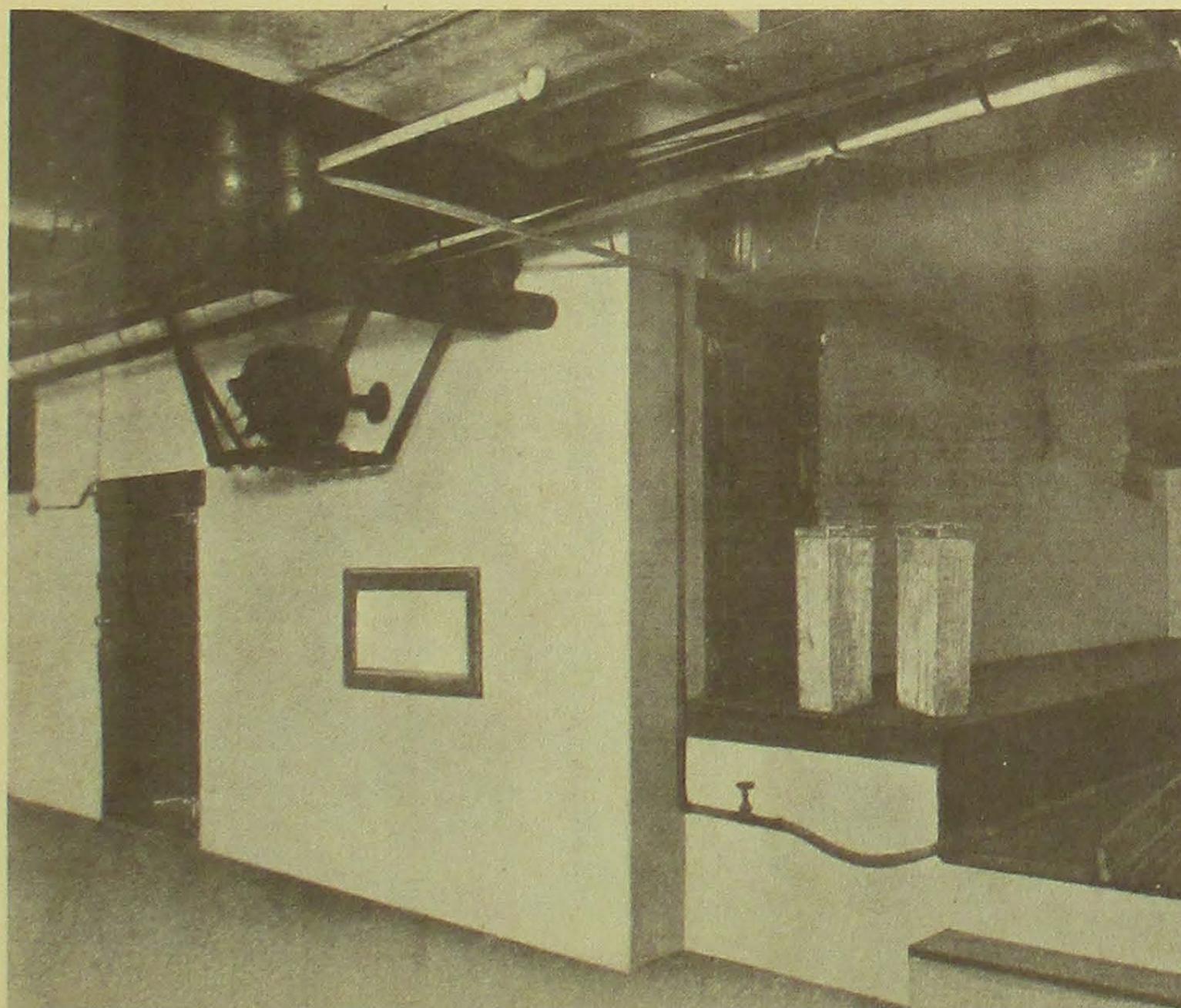
Topeka Pure Milk Co., Topeka, Kas.

Hazelwood Cream Co., Portland, Ore.

Seattle Ice Cream Co., Seattle, Wash.



One of the Hardening Rooms

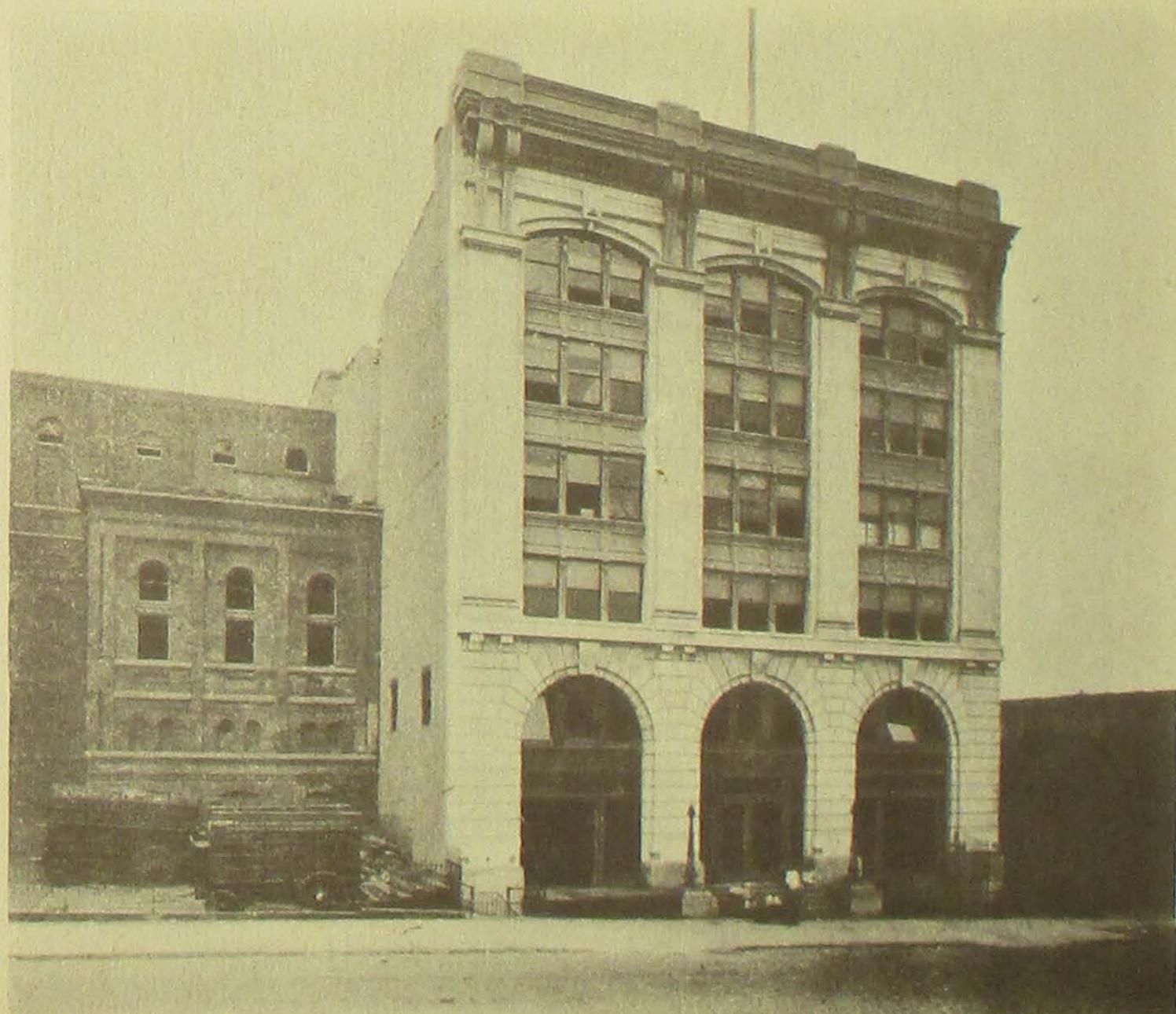


NUNNALLY COMPANY
ATLANTA, GA.

THIS is an exterior view of an ice cream hardening room, insulated throughout with Nonpareil Corkboard. Southern manufacturers of ice cream have been just as quick to recognize the merits of this form of insulation as those in the North. Its efficiency, its long life in service, its freedom from rot and mold, and the fact that it may be easily erected in any type of building, appeal to the ice cream man wherever situated. The old type of plant, damp and dirty, with moldy, water-soaked insulation, has disappeared, and in bringing about this much to be desired change, Nonpareil Corkboard has played an important part. Over two hundred ice cream manufacturers are numbered among our customers.

SHEFFIELD FARMS-SLAWSO-
DECKER COMPANY
NEW YORK, N. Y.

THE largest distributors and producers of dairy products recognize the merits of Nonpareil Corkboard. It has been used in insulating this building, as well as several others belonging to this company—one of the most important concerns of the kind operating in New York City. Its installation in plants of this character is dictated by sound common sense. A dairy must operate economically, without waste of refrigeration. This means that the insulation must be efficient. It must also be durable and absolutely sanitary. No other material meets these requirements so completely as does Nonpareil Cork.





Milk Storage Room

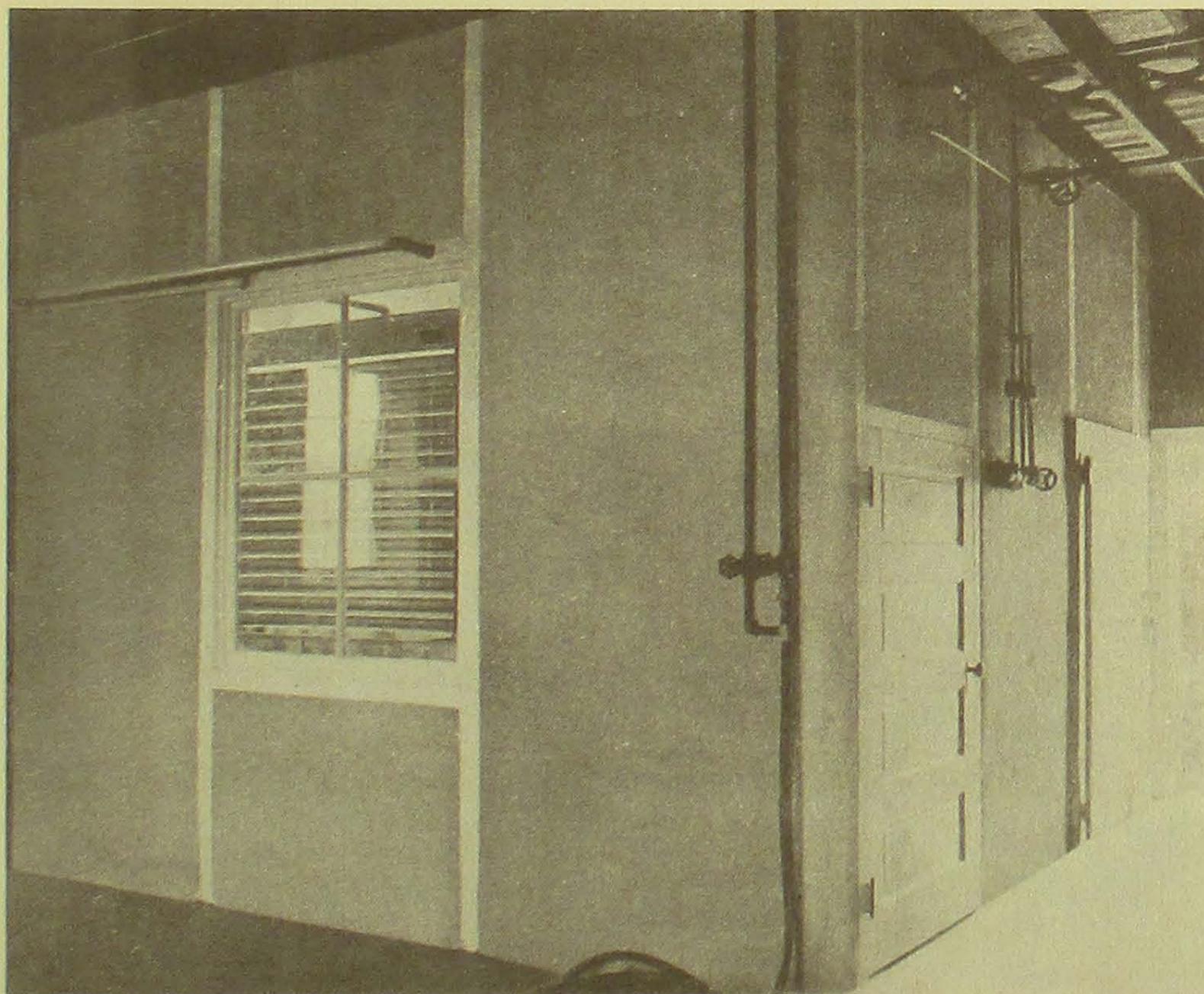
HILL DAIRY
CHATTANOOGA, TENN.

THIS plant, formerly owned by the East Tennessee Dairy Company, is one of the largest of the kind in the South. All the refrigerated rooms in both the dairy and ice cream departments are insulated with Nonpareil Corkboard. The efficiency of this material, combined with its complete freedom from rot, mold and offensive odors, has firmly established its position as the standard form of insulation in the dairy industry. About four hundred plants of this kind are found on our list of customers.

KERMAN CREAMERY COMPANY
KERMAN, CAL.

THIS plant is typical of dozens of others throughout the country that are insulated with Nonpareil Corkboard. The creameryman has been quick to realize the benefits which result from using good insulation. It cuts down his ice bills, if he uses ice, or reduces the wear and tear on his refrigerating machine, if he employs artificial refrigeration. It saves money for him, in fact, every moment that his plant is in use and, besides, is conducive to cleanliness and purity of product.





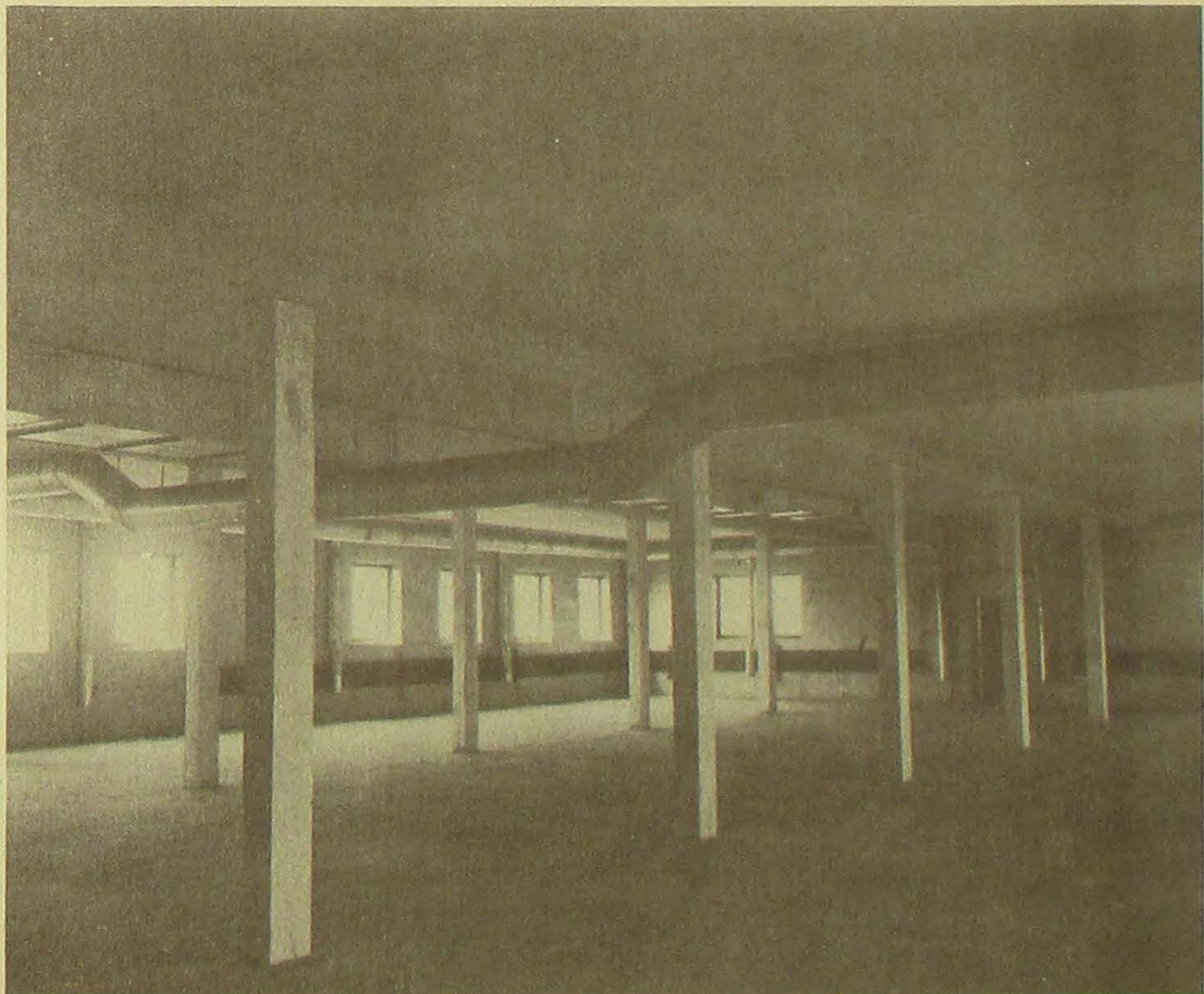
E. H. WOOLMAN CREAMERY
DOE RUN, PA.

THIS view shows a small cream storage insulated with Nonpareil Cork-board. Up-to-date creamerymen are realizing that good insulation will keep their ice bills down while fine hardware and cabinet work will not; consequently, they are slowly but surely getting away from the use of boxes in which the insulation—so-called—consists of a single air space or an inch or two of mineral wool, which soon becomes reeking wet. They have found that it pays, right from the start, either to demand Nonpareil Cork insulation, if they are buying a box ready-made, or to purchase the material and build their own cold storage rooms. This is not hard to do, as directions are furnished free of charge.

STANDARD CARAMEL COMPANY
LANCASTER, PA.

IN the production of chocolate-coated candies, much better results are secured, both in quantity and quality of product, if the rooms, in which the chocolates are dipped and stored, are kept cool. Refrigeration plays an important part in chocolate factories also. Cold rooms are here required to cool the hot material quickly after it has been run into the molds. Fifty or more plants, engaged in these lines of manufacture, are using our materials, among them the following:

Walter M. Lowney, Boston, Mass.
Walter Baker & Co., Milton, Mass.
Hershey Chocolate Co., Hershey, Pa.
Ideal Cocoa & Chocolate Co., Lititz, Pa.
Pennsylvania Chocolate Co., Pittsburgh, Pa.
Reymer & Bros., Pittsburgh, Pa.
Dolly Varden Chocolate Co., Cincinnati, Ohio
R. T. Mackenzie Co., Cleveland, Ohio
Busy Bee Candy Co., St. Louis, Mo.



Chocolate Dipping Room Insulated with Nonpareil Corkboard



WARD BAKERY
BROOKLYN, N. Y.

THE temperature of the dough rooms, mixing rooms and proving rooms in modern bakeries is controlled by artificial refrigeration. This means, of course, that such rooms have to be insulated—generally with Nonpareil Corkboard. In this particular plant more than 77,000 board feet are installed. Approximately twenty bakeries are found on our list of customers, among them the following:

Ward Bakery, Bronx, New York, N. Y.
Fleischmann's Vienna Bakery, Philadelphia, Pa.
Ward-Mackey Co., Pittsburgh, Pa.
Baur Brothers Co., Pittsburgh, Pa.
Gordon Pagel Bread Co., Detroit, Mich.
McKinney Bread Co., St. Louis, Mo.
National Biscuit Co., Houston, Texas

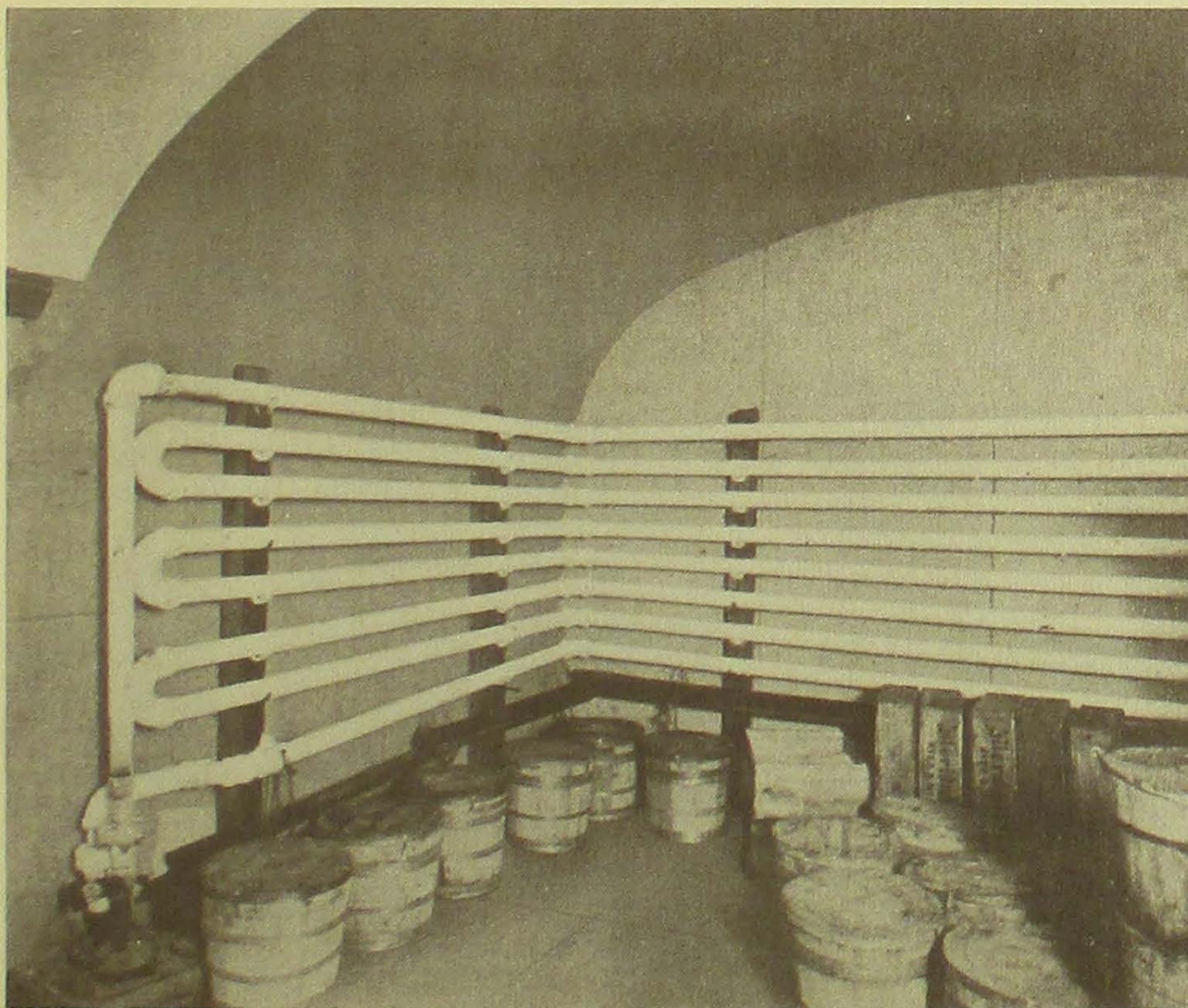
GARRETT & COMPANY

NORFOLK, VA.

THE cold storage rooms in this winery are insulated throughout with Nonpareil Corkboard. Refrigeration is rapidly coming to play a more and more prominent part, not only in the production of wines, but also in the manufacture of unfermented grape juice, fruit extracts, table syrups, etc. Among the prominent manufacturers in these fields, who use Nonpareil Corkboard, may be mentioned the following:

Italian Vineyard Co., Cucamongo, Cal. (Wines)
California Wine Association, San Francisco,
Cal. (Wines)
J. Hungerford Smith Co., Rochester, N. Y.
(Extracts)
Blue Ridge Beverage & Extract Co., Ander-
son, S. C., (Extracts)
St. Louis Syrup & Preserving Co., St. Louis,
Mo. (Syrups)
Penick & Ford, Amesville, La. (Syrups)
Grape Products Co., North East, Pa. (Grape
Juice)





GILBERT & BYE
PHILADELPHIA, PA.

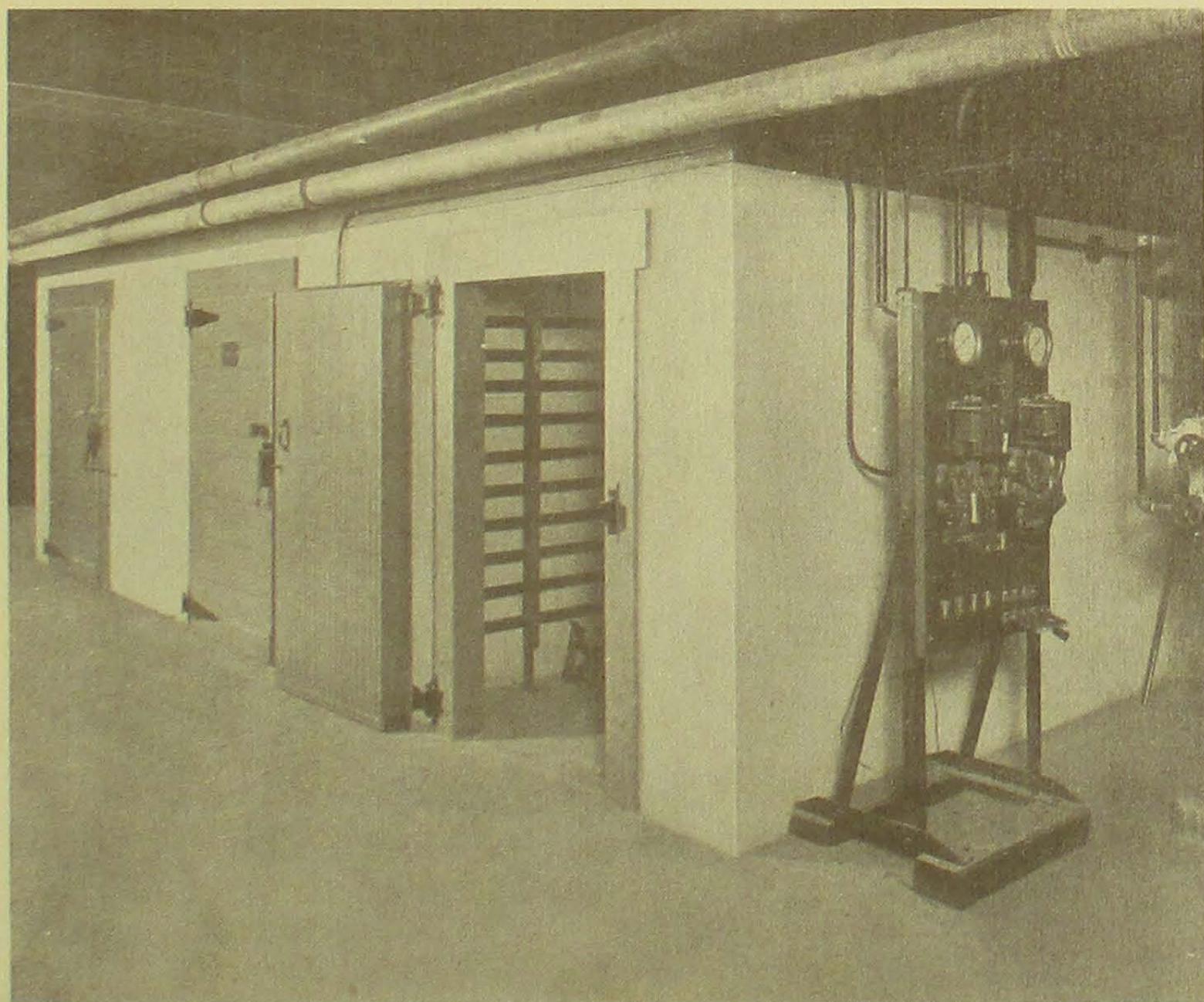
FOR the commission house, no other insulation gives the satisfaction that Nonpareil Corkboard does. It is easily erected, saves space, and is absolutely sanitary. Hundreds of small storage rooms for commission merchants, grocers, butchers, fruit dealers, florists, etc., throughout the country are insulated with Nonpareil Corkboard.

SPRAGUE-WARNER & COMPANY
CHICAGO, ILL.

EVERY wholesale grocer needs one or more cold storage rooms. In this particular building, occupied by one of the most prominent grocers in Chicago, there is a series of such rooms insulated with Nonpareil Cork. More than seven carloads were required in executing the contract. Among other concerns of this character, using our materials, are the following:

W. M. Hoyt Co., Chicago, Ill.
John Hoffmann & Sons Co., Milwaukee, Wis.
Kroger Grocery & Baking Co., Cincinnati, O.
W. W. Walker, Hartford, Conn.
L. C. Bates Co., New Haven, Conn.
Acme Tea Company, Philadelphia, Pa.
P. H. Sheehy Co., Washington, D. C.





GEORGE K. STEVENSON & COMPANY
PITTSBURGH, PA.

THIS set of cold storage boxes is an ideal installation for a retail grocery. The walls consist of two courses of Nonpareil Corkboard, erected edge on edge, without studding—plastered inside and out with Portland cement. The floor has a concrete wearing surface. Wood is eliminated almost entirely. As the corkboard itself is vermin- and germ-proof, and since both the interior and exterior can be washed down with a hose as often as desired, without affecting the efficiency of the insulation in the slightest, it is an easy matter to maintain absolutely sanitary and hygienic conditions. The advantages of this type of box over the old water-soaked, moldy, wooden refrigerator, are obvious.

J. F. JELKE COMPANY
CHICAGO, ILL.

THE manufacture of butterine has become an important industry. This plant, probably the largest of the kind in the country, is insulated throughout with Nonpareil Corkboard. Eighteen carloads were required. In the production of butterine, just as in other food products, the maintenance of sanitary and hygienic conditions is imperative. For this reason, if for no other, Nonpareil Cork should always be used.





JOHN WANAMAKER
PHILADELPHIA, PA.

THE efficiency and durability of Nonpareil Corkboard have been demonstrated by more than fifteen years of actual service. It is the one and only cold storage insulating material approved by the National Board of Fire Underwriters. Is it strange that every important fur vault in the country is insulated with it? Six carloads were used in insulating this one of Wanamaker's. Among other concerns, whose fur vaults are insulated with Nonpareil Cork, are the following:

John Wanamaker, New York, N. Y.
Lord & Taylor, New York, N. Y.
James McCreery & Co., New York, N. Y.
C. G. Gunther, New York, N. Y.
Gimbels, New York, N. Y.
Abraham & Straus, Brooklyn, N. Y.
Frederick Loeser & Co., Brooklyn, N. Y.
Henry Siegel, Boston, Mass.
Strawbridge & Clothier, Philadelphia, Pa.
McCreery & Co., Pittsburgh, Pa.
Boggs & Buhl, Pittsburgh, Pa.
Hutzler Bros. Co., Baltimore, Md.
Marshall Field & Co., Chicago, Ill.

KNICKERBOCKER HOTEL
NEW YORK, N. Y.

ALL the cold storage boxes in this hotel are insulated with Nonpareil Corkboard. It renders the maintenance of low and uniform temperatures an easy matter. This, combined with the fact that it is nonabsorbent of moisture, makes it the ideal insulation for this class of work. Rot, mold, offensive odors—all are unknown when Nonpareil Cork is used. Among other hotels in New York City in which it has been installed, are:

The Plaza
The Ritz-Carlton
The St. Regis
The Astor
The Belmont
The Breslin
The Majestic
The Marlborough





THE BELLEVUE-STRATFORD
PHILADELPHIA, PA.

EVERYBODY knows that cold storage rooms cannot be kept sweet, clean and wholesome if the insulation is water-soaked and rotten. Almost everyone knows too that when Nonpareil Cork is once installed, insulation troubles all stop. Hundreds of hotels and restaurants are using the material, having either purchased it direct or through such well-known box builders as:

Jewett Refrigerator Co., Buffalo, N. Y.
Lorillard Refrigerator Co., New York, N. Y.
Bernard Gloekler Co., Pittsburgh, Pa.
McCray Refrigerator Co., Kendallville, Ind.
G. J. Gruendler Mfg. Co., St. Louis, Mo.
Kurtz Refrigerator Co., Cleveland, Ohio
C. Schmidt Co., Cincinnati, Ohio
Cincinnati Butchers Supply Co., Cincinnati, O.

ENGINEERS' CLUB
NEW YORK, N. Y.

A SMALL refrigerating plant is now considered a part of the regular equipment of every well-appointed club house. Organizations of this character, as a rule, want the best that is to be had. Hence, when it comes to selecting insulation for their refrigerators, Nonpareil Corkboard is usually chosen. Among other well-known clubs in which the material has been used, are the following:

Art Club, Philadelphia, Pa.
The Lighthouse, Philadelphia, Pa.
Pittsburgh Athletic Association, Pittsburgh,
Pa.
St. Louis Club, St. Louis, Mo.
Ohio Club, Columbus, Ohio
Metropolitan Club, Washington, D. C.
Minneapolis Club, Minneapolis, Minn.
Columbia Club, Indianapolis, Ind.



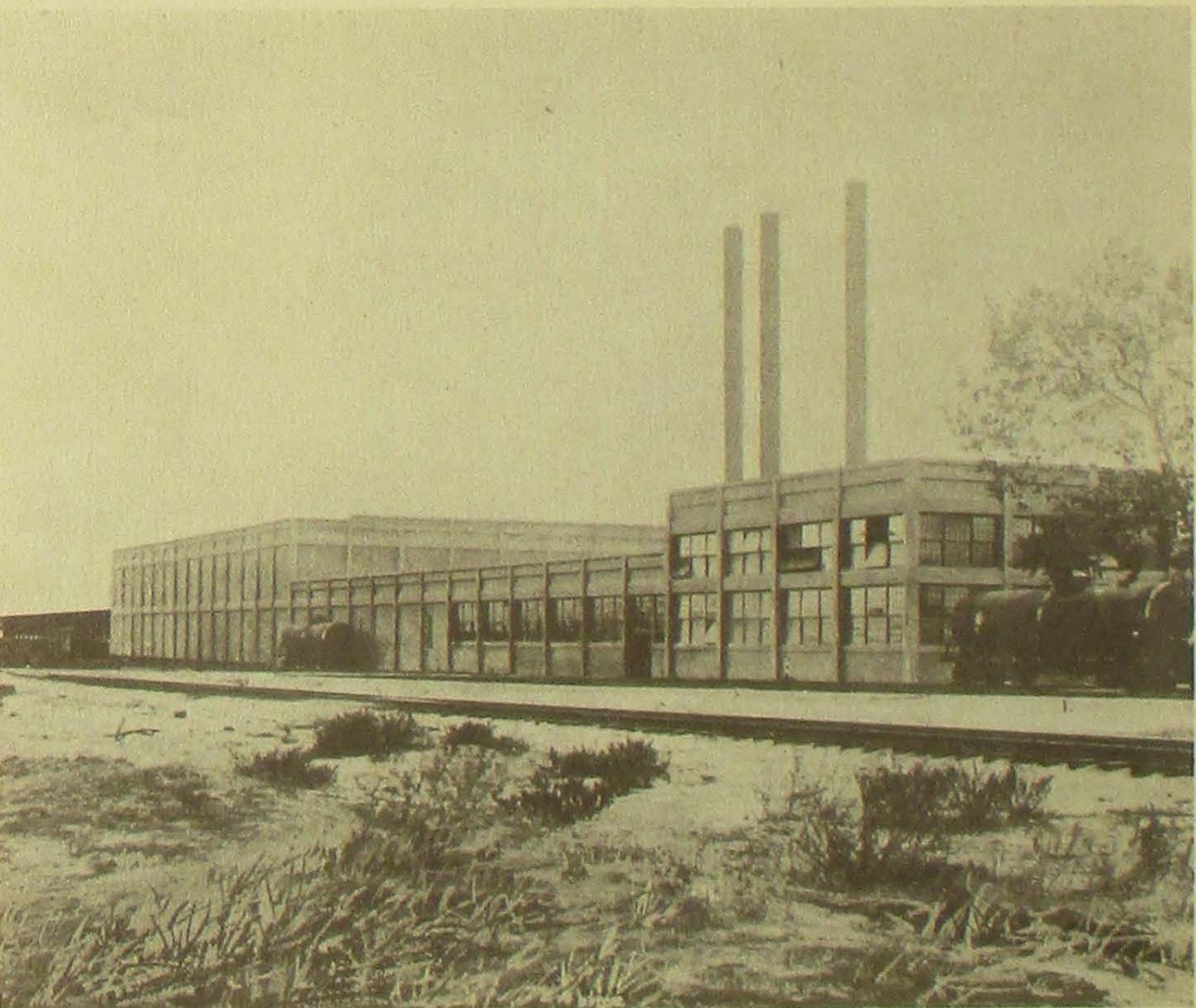
MASONIC HOME
UTICA, N. Y.

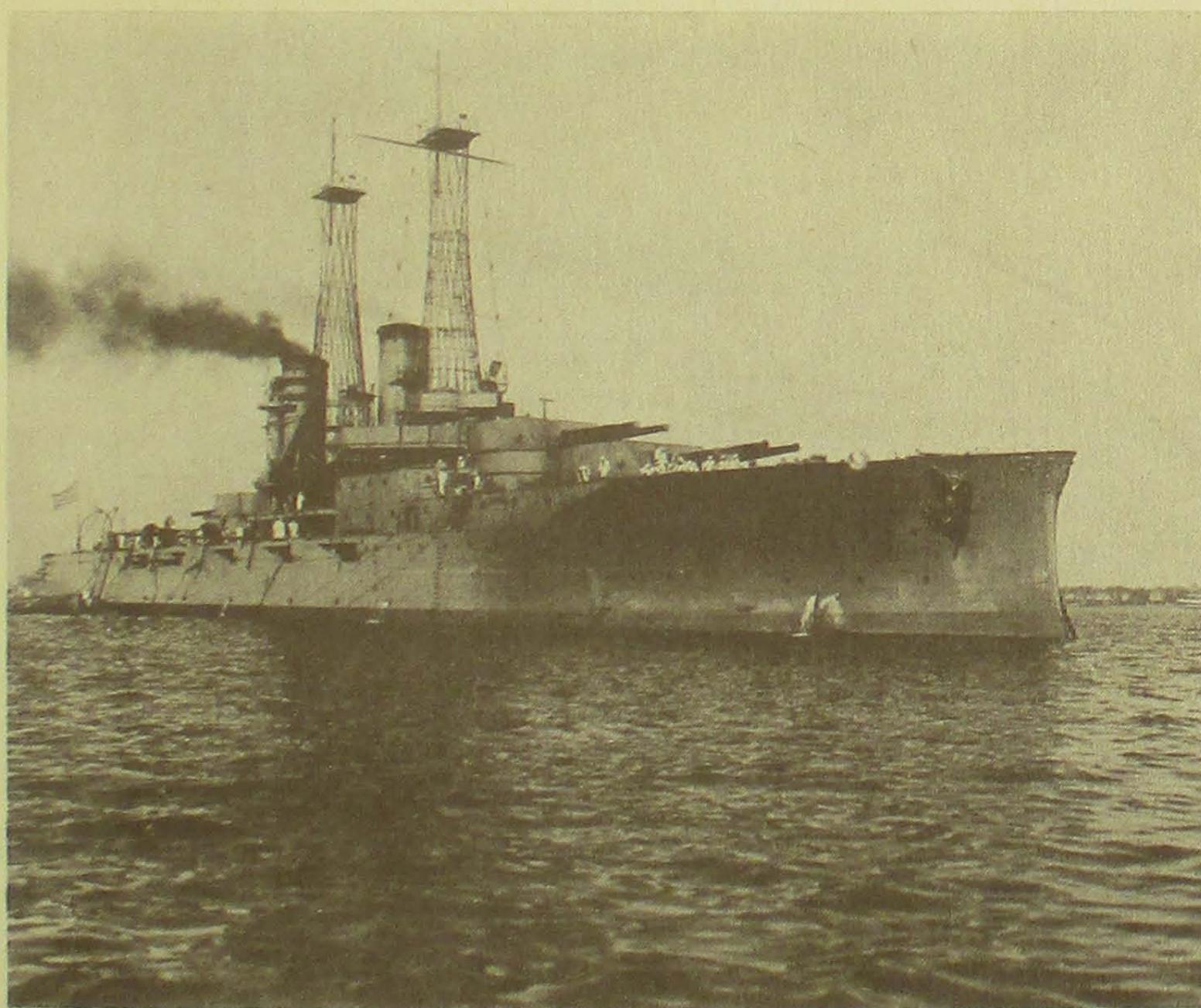


ALL cold storage rooms in this institution are insulated with Nonpareil Corkboard. It has been used in dozens of schools, hospitals, asylums and charitable and penal institutions of various kinds all over the country. The fact that Nonpareil Corkboard has been employed so extensively in public and semi-public work of such character, indicates how universally it is recognized by architects and engineers as the standard form of cold storage insulation.

ATCHISON, TOPEKA & SANTA FE
RAILROAD CO.
SAN BERNARDINO, CAL.

THE pre-cooling of fruit, for shipment to distant markets, is one of the latest innovations in the handling of perishable food products. In the plant shown in this photograph, thirty cars can be cooled at one time by means of cold air circulation. The bunkers are then filled with ice and the cars started on their journey across the continent. In the insulation of the ice storage rooms, freezing tanks, and cold air ducts, more than 365,000 board feet—eighteen carloads—of Nonpareil Corkboard were used. The air ducts were covered originally with mineral wool blocks, but this material soon got water-soaked after the plant began to operate and had to be torn off and replaced with Nonpareil Corkboard. Two carloads were required for this purpose.





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U. S. S. NORTH DAKOTA

THE United States Navy uses large quantities of Nonpareil Corkboard aboardship for the insulation of magazines, refrigerated rooms and living quarters, the government specifications providing that all corkboard must withstand boiling for three hours at atmospheric pressure without going to pieces and without expanding more than two per cent in any direction. This simple test will demonstrate conclusively whether or not any insulating material will prove durable in service. Nonpareil Corkboard has been used on thirty or more of the battleships and cruisers of the United States Navy; also on the vessels of several foreign powers. Over three carloads are installed on the "North Dakota."

CATALOGUE

OUR complete catalogue, "Nonpareil Corkboard Insulation," a bound book of 120 pages, and other literature, may be obtained without charge on request to the nearest office.
ARMSTRONG CORK CO., *Insulation Dept.*, PITTSBURGH, PA.

CHICAGO	241 Randolph Street
ST. LOUIS	10-12 North Second Street
ATLANTA	603 Rhodes Building
CINCINNATI	246 Main Street
CLEVELAND	602 American Trust Building
DALLAS	P. O. Box 415
KANSAS CITY	P. O. Box 903
SAN FRANCISCO	724 Phelan Building
NEW YORK	Nonpareil Cork Works, 50 Church Street
BOSTON	Nonpareil Cork Works, 84 North Street
ROCHESTER	Nonpareil Cork Works, 808 Powers Building
PHILADELPHIA	John R. Livezey, 1933 Market Street
BALTIMORE	John R. Livezey, 308 N. Holliday Street
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